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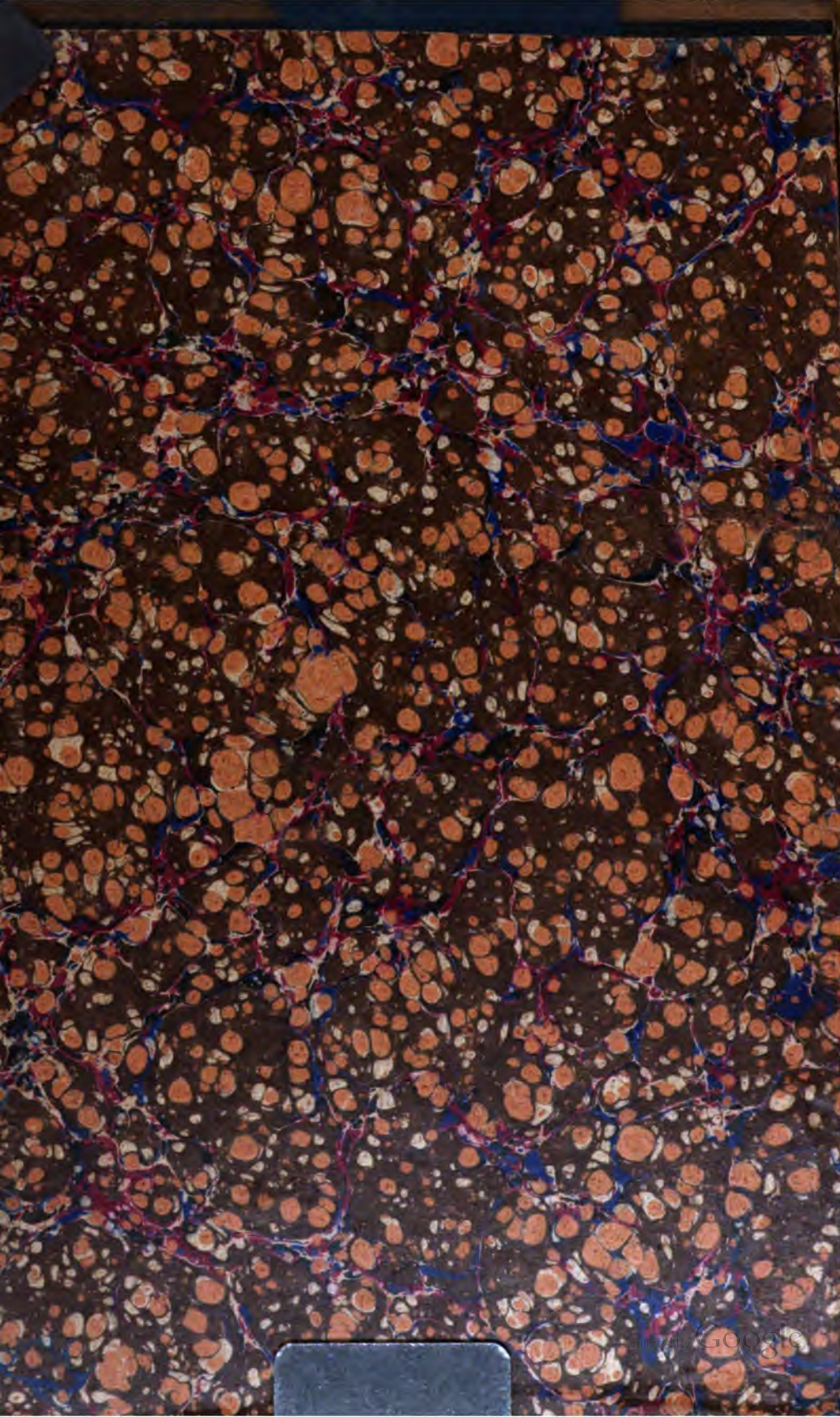
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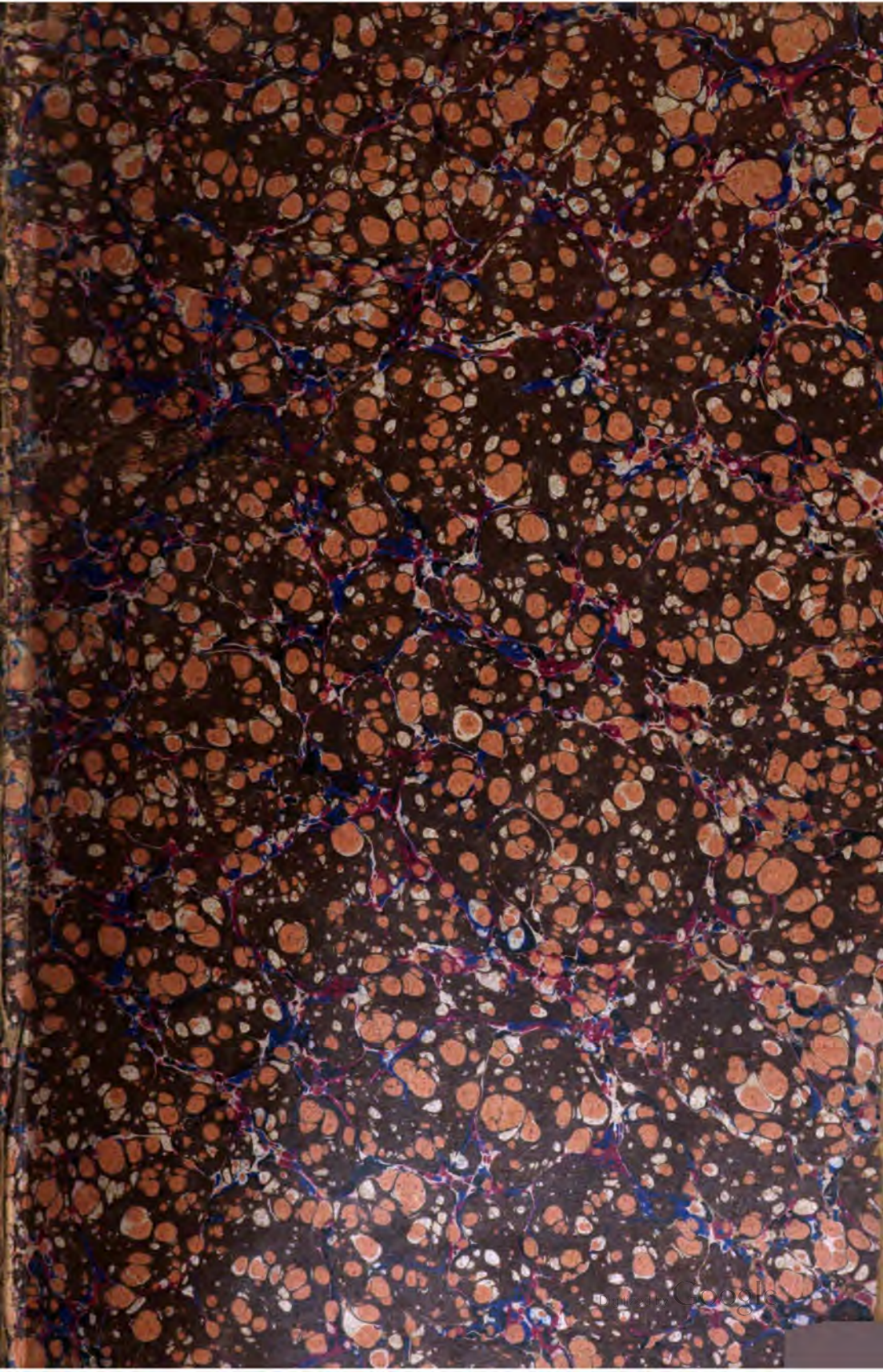
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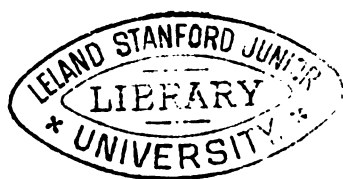


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THE
QUARTERLY JOURNAL
OF
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OCTOBER, 1898

THE DUTIES ON WOOL AND WOOLLENS.*

IN the quarter of a century which has now elapsed since the passage of the wool and woollens tariff act of 1867, the system of duties then established, and since maintained in its essential features, has gradually come to be the crucial part of the protective policy. At the beginning of this period the iron duties were more important in their economic effects, and perhaps in their political weight. But the extraordinary development of the iron industry, in some degree stimulated by the tariff, and greatly aided by other more potent causes, has made the question of protection much less vital than it seemed to be twenty years ago; while the maintenance of the wool

* In this paper I have avoided as much as possible the repetition of what has been given to the public in my volume on the *Tariff History of the United States*. More particularly, I have passed over the changes made from time to time in the rates of duty, and venture to refer to the *Tariff History* the reader curious as to these details and their significance.

I have to acknowledge my indebtedness to Mr. Henry G. Kittredge, of the *Boston Journal of Commerce*, for many valuable suggestions, based on his intimate knowledge of the wool and woollens trades.

and woollens duties is steadily asserted to be as essential as it ever was. At the same time the mode in which the duty on wool has been made to do service in Ohio and other States of doubtful politics, as assuring the farmer his share of the benefits of protection, has given it a foremost place in election years, and has finally made it the point of specific difference between the great political parties. The Democrats, after years of half-hearted attack on the policy of high protection, were finally spurred to an unequivocal statement of their intentions by the courageous message which President Cleveland sent to Congress at the opening of the session 1887-88. In the tariff bill prepared in the course of that session by the committee of which Senator Mills was chairman, they proposed to put wool on the free list and to reduce correspondingly the duties on woollens. The Republicans, by way of answer to this declaration, proposed, in the bill elaborated by their Senate committee during the same session, a slight increase in the wool duty and a more than corresponding increase in the rates on woollens,—changes which were finally accomplished when the elections of 1888 gave the Republicans a working majority in both Houses, and enabled them to pass the tariff act of 1890. The overwhelming victory of the Democrats in 1892 gives them now the opportunity to carry out in turn their policy. Whatever uncertainty there may be as to the disposition of other parts of the protective system at the hands of the present Congress, it may be assumed as settled that the wool duty will go, and that the system of 1867 will be replaced by a fundamentally different *régime*. The time is opportune, therefore, for a consideration of the effects of the policy followed during the last twenty-five years and the probable effects of the policy which is to come.

In such an examination it will be best to separate the duties on wool from those on woollens, leaving for final

discussion the mode in which the effects of the two have become entangled. We may begin with those on wool.

I.

The tariff act of 1867 divided wool into three classes,—clothing wool, combing wool, and carpet wool. The names indicate that the divisions were meant to correspond to the uses made of the different classes. Clothing wool was that whose fibres were to be interlaced by carding machinery. It was used in making the textiles denoted by the language of other parts of the tariff acts as “woollen cloths.” Combing wool was that whose fibres were to be brought parallel to each other by combing machinery, and used in the manufacture of “worsted.” Carpet wool was of coarser quality, and expected to be used for carpets. But the expected use could not be the test for distinguishing the wools at the custom-house, and there the distinction went by blood. The wools of sheep bred from certain described stocks were defined as clothing, combing, or carpet wools, respectively.

In considering the effects of the duties assessed under these three heads, carpet wool may for the moment be set aside. Very little carpet wool is grown in the United States or has ever been grown here, and the questions which arise concerning the duties on this quality are much more simple than those brought up by the other two classes of wool. In current discussions of the wool duties it is those on clothing and combing wool which are chiefly had in mind; and this with reason, since they alone present the intricate and disputed problems as to the working of the protection given to wool. We may proceed, then, to examine these by themselves, leaving for a later place what little is to be said in regard to the duties on carpet wool.

The duties on clothing and combing wool, as it happens,

may be treated virtually as one. On the face of the statutes the two classes have been charged, sometimes with the same duties, sometimes with duties slightly divergent. The rates, too, have shifted somewhat, being slightly reduced in 1872, raised to the old rate in 1875, again reduced slightly in 1883, and once more raised a trifle in 1890. All these changes, however, were inconsiderable, as were the divergences in the rates on the two classes. We may treat the duties on clothing and combing wool as having been virtually maintained during the whole period at a roughly uniform rate of between ten and twelve cents a pound. In the earlier years this was equivalent to thirty or forty per cent. on the foreign prices. As prices went down, the percentage rose to fifty and more. The protection has been substantial, and has been continued long enough to work out all its effects.

The difference between the rates on clothing and combing wool may be disregarded, not only because it has been small in amount, but because for many years it has corresponded to nothing of essential importance in the wool trade. The distinction according to breeds between the two classes of wool, as made in 1867, denoted real differences in the way in which the material was used; but it soon became unmeaning and unimportant.

In 1867 the wool which it was possible to put through the combing machine was strictly limited; only that having a long staple, yielded by certain breeds of sheep mentioned in the tariff act, was available. As time went on, combing machinery steadily improved; and a larger and larger quantity of wool of the merino sheep, classed in the act of 1867 as clothing wool, passed through the combs, and was manufactured into worsteds. This was the case with both imported and domestic wool; and it is difficult to see why in 1883, and still more in 1890, when the lines of distinction drawn in 1867 were known on all hands to be obsolete, they were yet retained on the statute book.

The explanation doubtless is that the system of wool and woollens duties had been so often lauded as perfect in plan that it was feared to touch it in any prominent place. At all events, for our purposes, we may disregard the distinction between clothing and combing wools. While almost all of the wool grown in the United States would be classed under our tariff system as clothing wool, a good part of it for many years has passed through the combs; and similarly much of the wool imported and dutiable as clothing wool has also been combed. For practical purposes these two may be taken as one mass of wool, the greater part of which may be turned at will to the manufacture, by one or the other sort of machinery, into woollen or worsted cloths.

The first questions to be asked in considering the effects of a given duty are as to the domestic production and the imports, and the relative importance of these two sources of supply. The facts here are ascertainable with all needed accuracy, and have lately been collected in convenient and accessible form.*

Looking first at the domestic supply, we find three distinct stages in the course of production. First, from 1867 to 1873, the product remains stationary at about 170 million pounds. Next, in the years 1873-83, there is a very rapid advance. The annual output increases rapidly and steadily, and by the close of the ten years has passed 300 millions. Since 1883 there has been again a stationary product, with indeed some tendency to an actual decline in very recent years. Taking the twenty-five years as a whole, there has been an increase from between 160 and 170 millions of pounds to about 300 millions; but this advance was achieved entirely in one decade,—between 1873 and 1883.

The stagnation of the years immediately following the

* In the *Wool Book*, compiled in 1891 by Mr. S. N. D. North, Secretary of the Association of Wool Manufacturers, and published by the Association.

passage of the act of 1867 has sometimes been referred to as proof of the failure of that measure. The situation in 1867-73 was, indeed, even more unsatisfactory to the wool-growers of the heart of the country than the figures of total production indicate. During that period the number of sheep and the product of wool in States like Ohio and Pennsylvania declined greatly; and the total product of the United States was maintained only by the gain in other regions, which is presently to receive our attention more fully. The slaughter of sheep and the losses of wool-growers in Ohio were ascribed by the opponents of the act of 1867 to the disastrous working of that measure. But they were due mainly, if not entirely, to other causes. The demand for wool was declining. During the Civil War the stoppage of the cotton supply had led to a much greater demand for wool. As cotton reappeared on the market, this unusual demand ceased. The price of wool fell, and its production tended to shrink. As it happened, one of the freaks of fashion intensified the depression which the wool-growers of Ohio and neighboring States had to meet. Certain woollen goods, or rather worsteds, made from combed wool, came into demand; and at that time combing machinery could be applied to very little American wool. A heavy importation of combing wool took place during the years 1871-73, and the usual grades of domestic wool went begging. The crash of 1873 marks the end of this period, abnormal for the wool trade as it was in many respects for the industry of the country as a whole. Those who favored the system of duties established in 1867 might well say that it was not fairly on trial until the last direct effects of the Civil War had disappeared and the wool trade had fairly settled down to a trial of the new *régime*.

Beginning roughly with 1873, the production of wool, as we have seen, rose steadily and rapidly. Here, it might be alleged, the fruits of the legislation of 1867 were

at last appearing. To understand the development after 1873, however, and measure the extent to which it was promoted by the protection of wool, we must consider not only the advance in the total volume of production, but the marked change in its geographical distribution. Here the salient fact is the westward movement of wool-growing, and the steadily declining importance of the more thickly settled Eastern and Central States. The region east of the Mississippi has produced a smaller and smaller part of the total supply of domestic wool, and that west of the Missouri a larger and larger part. In the decade of rapid advance, from 1873 to 1883, the gain was made chiefly in Texas, California, and the Territories. A small part of it only came from those parts of the country which are the political strongholds of wool-growing. Since 1883, again, these Eastern and Central States have shown a marked loss; and the total product has been kept stationary only by the increased yield at the frontier, as in Montana, Oregon, Wyoming, New Mexico.

This phenomenon is an old one in the United States. The newer parts of the country have always been the most important producers of wool. Sixty years ago New York and Pennsylvania formed the great wool-growing region; thirty years ago, Ohio and Michigan; at present, Texas, New Mexico, California, Oregon. In the earlier stage of settlement, sheep are kept for their wool on the thinly occupied lands; and wool-growing is a primary and independent industry. As agriculture reaches a more developed stage, sheep are kept as an incident in the general cultivation of the soil. A certain number can be maintained to advantage at very slight cost, but the use of the land simply for their pasture no longer pays. The commercial mode of stating this is that the land becomes too dear for sheep-raising; and the testimony which has been given on behalf of wool-growers before tariff committees and commissions has a plentiful sprinkling of

calculations of the cost of raising wool, in which the rent of the land figures as a heavy item. The simple fact of the situation is that the rent of land, or, what is the same thing, its price, is high, because the greater density of population has made it advantageous to use the soil for other purposes. Wool-growing naturally shifts to regions so thinly settled and so far from the centre of population that tillage has not yet begun.

This westward movement has been promoted in the last twenty years by the rapid pushing of railways into the new country west of the Missouri, and the consequent ease with which the Indians have been subdued and the wild beasts exterminated. The Union and Central Pacific Railways were completed across the continent in 1869, opening a new region to exploitation. Other important lines penetrated the country to the north and south. That process of building great lines far ahead of population into new and unsettled regions, which marks the history of railway operations in the United States since 1850, strengthens the tendency to pastoral use as the pioneer stage in the occupation of the soil. Vast stretches of land become accessible, and can be most quickly and profitably utilized by pasturing sheep and cattle. Beef and wool have been the products first brought to market, and both have been yielded in quantities so large as to make inevitable the decline in their prices. If the land is of the sort that can be used for tillage, this is but a temporary stage. Settlers throng in, wheat and corn succeed cattle and sheep, and the wool clip diminishes; the transition being sometimes accompanied by a struggle between the large holders, who wish to retain the use of the land for droves and flocks, and the poorer settlers, who seek to found new homes on permanent farms. Sometimes, indeed, the obstacles of climate prevent the transition from taking place at all. As the arid region of the West is approached, the rainfall becomes too small

for agriculture; and "ranching," in one form or another, is the only possible use of the land. Herdsmen, with sheep or cattle, then become the permanent occupants.

The details of this process can be easily traced in the development of some of the Western States during the last twenty years. Thus in the decade 1870-80 California became a great sheep-raising State. Since 1880 the number of sheep has declined to one-half the former number: agriculture is succeeding pasture. In Texas the number of sheep increased with extraordinary rapidity until 1885: then the decline set in. Montana, Oregon, Utah, Wyoming, have increased their number of sheep and their wool clip until the present time. They are still in the pioneer stage of pastoral occupation. Some portions of these States, and large stretches in New Mexico and Colorado, are in the region of deficient rainfall, and will remain permanently pastoral. But, as time goes on, the available lands will be taken into tillage, and will have a smaller number of sheep and a smaller product of wool.

The counterpart of this process has been going on in other parts of the world. Australia, the Cape of Good Hope, and the Argentine Republic, stand in the same relation to European countries as the ranching parts of the West to the settled regions of the East. The enormous cheapening of transportation has made them available for supplying England and the Continent with wool. The slower progress of settlement in the Argentine Republic has kept this region of supply in the pastoral stage longer than would be the case with a similar tract in the United States; while Australia and the Cape of Good Hope present climatic conditions similar to those of the more arid districts of our West, and so bid fair to remain great wool-producers permanently. How far these countries may become sources of supply for the United States also is another question, to which attention will presently be given.

It is clear that the increase in wool-raising in the United States has been due, in large part at least, to causes of general operation. We have the case, familiar in economic history, where several causes have united to bring about a given result; and no one of them can be ascertained to have contributed specifically more or less. The higher duties of 1867 may have stimulated the increased production of wool in 1873-83: the general course of economic development in the West might conceivably have resulted in the same increase without any duties. Certain it is that any effect which the duties may have had, exhausted itself before long. The stationary production of the last ten years, and the fluctuations in the individual States, show how signal is the effect of other forces than the tariff, and gives color to the opinion that things would not have been greatly different even if there had been no changes of duty in 1867. This view gets some confirmation from another quarter,—from an examination of the relation of the domestic supply of wool to the imports, and the course of prices at home and abroad.

The figures as to the imports of clothing and combing wool since 1867 show that these continue steadily and in considerable volume, though with great fluctuations from year to year. In periods of activity, as in 1871-73 and 1880-81, they rise rapidly. The very large imports of the earlier years of our period, in 1871-73, are due largely to the unusual conditions referred to a few pages above,—the change in fashion and the consequent great demand for combing wool, then not obtainable within the country. During this abnormal period the maximum imports of any one fiscal year, 57 million pounds, were reached in 1872. Then there came a tendency to declining imports, in the years of depression, after the crash of 1873,—the period during which domestic production was advancing most rapidly. The minimum imports were those of 1879, less than 7 millions. The revival of industry brought a sudden in-

crease in 1880 and 1881; and in the years since 1883 and 1884 there has been a very distinct tendency to an increase. The imports of the last decade have been between 20 and 30 million pounds annually, and nearer the second figure in its later years. They were unmistakably larger in the nine years, 1884-92, than in the nine years preceding; and the increase has been distributed over the individual years with a steadiness indicating that the change is not sporadic. While the domestic production has been slackening during the last decade, the imports have been gaining.

The steady continuance of large imports, and the tendency in late years to an increase rather than a decline in their volume, might seem to prove that the price of domestic wool has been higher than that of foreign by the full amount of the duty. So much can be inferred whenever imports flow in over the barrier of a duty. In the case of wool the inference would be that the domestic product has had the full benefit of the duty; and thence, again, that the increase of domestic production has been very effectively stimulated by it. But, in so reasoning, we must first be sure that the article imported is really the same as that made at home, and that no differences in quality or use affect the extent to which the two compete. And with wool it happens that great differences exist, and make it impossible to reach any such simple conclusions in regard to the meaning of the imports as the figures on their face seem to warrant.

No raw material presents such differences in quality as wool, varying as it does in fineness, length, and lustre of fibre, in cleanness, and in availability for constantly changing machinery and for the varying goods demanded by the caprices of fashion. At the same time climate, soil, the breeding and care of sheep, affect the character of the fleece, and bring about insensible gradations in quality and commercial value which only those active in the trade

can follow. But, in the confusion with which the layman finds the situation obscured, some things stand out clearly. The bulk of domestic wool is different from the imported wool. It has a comparatively short fibre, is strong, but not fine, and is adapted for making cloths of good quality, but not of the best. With no considerable exception, it is "clothing" wool under the tariff system of classification by blood. Twenty years ago most of it was really clothing wool, being too short in fibre for the combing machinery of the day. At present, what with the changes in the quality of the fleece and the improvements in machinery, a very large part of it passes through the combs. The imported wool (always setting aside the carpet wool) is of finer quality, has a longer staple, and is used — generally in admixture with domestic fleece — in making finer and more expensive goods, chiefly worsteds. It does not compete directly with the bulk of the domestic wool.

Under these circumstances the effect of the duty is not easy to make out. The price of much the largest part of the domestic wool is not directly affected by foreign competition, and certainly is not higher than that of similar wool abroad by the full extent of the duty. It may be higher in price by some amount less than the duty: it may not be higher at all. What the exact situation is cannot be stated with any sort of precision. Probably the wool that might compete most directly with the bulk of the domestic product is that of the Argentine Republic, whence large supplies were imported in the years immediately preceding the Civil War. All of this now goes to Europe, chiefly to the Continent: the duty prohibits its importation into the United States. So long has it been prohibited that the trade has lost that one infallible means of comparison which is given by sale in a common market. With the lapse of time, both American and Argentine wools have changed in quality: the tastes of consumers, the details of machinery, have changed. No one can say

exactly in what relation the two articles now stand. The indications are, on the whole, that average American wool is somewhat higher in price than similar wool is abroad. Ten or fifteen years ago the difference, though not so great as the amount of the duty, was considerable. Of late years it has been less. The price of American wool seems to have gone down as compared with wool prices abroad, and at present there is probably a variation of not more than a few cents between the foreign and domestic prices of the qualities to which the bulk of the domestic product belongs. The duty keeps up the domestic price, but probably not by a large amount. The test of sale in a free market alone can show what has been the exact situation and what the degree of effect exercised by the duty.

Some part of the domestic product, it is true, is in a different case. From Ohio, Pennsylvania, and other more Eastern States a considerable amount of fleece comes to market whose fibre and staple bring it into competition with the imported wool. Its price must be higher than that of the similar article abroad by the full amount of the duty: here the tariff exercises its full effect. But this part of the domestic supply comes mainly from the States which we have seen to be stationary or declining as wool-producers. The Territories and the West send little of the finer wool to market, though it should be said that the proportion coming from this region is now larger than it was in former years. How much of the total product belongs in this exceptional class can only be guessed. The quality of the wool which might be put in it shades imperceptibly, from that equal to the finest foreign to that used only at a pinch in substitution for the imported material. Moreover, the varying quality of that coming from the same region in different seasons, and the veerings of trade and of fashion, make the proportion different from year to year. As an approximate statement, it is

probably safe to say that some 20 million pounds of domestic wool compete directly with the foreign in every year, while not more than 50 million pounds are in that position in any one year. At the best, the proportion of the domestic product so placed is not large.

The imported wool comes, practically all of it, from Australia. In that country the physical conditions concur to give the wool-grower advantages of an unusual sort. Vast stretches of land have not enough rainfall for tillage, yet yield succulent grasses, which make admirable food for sheep and cattle. In bad years drought makes havoc with the patient beasts; but, year in and year out, they thrive and multiply. The docile weakness of the original inhabitants and the peculiar fauna of Australia, in which few mammals and no dangerous carnivora appear, obviate the need of protection to domestic animals, and enable them to be cared for by the smallest number of herdsmen. Winter there is none; and little fodder, if any, needs be provided. Not least, the climate and soil are favorable to the growth of fine wool. Why this should be is hard to say. The covering of the sheep is sensitive to every change in its habitat; and the same animal, shifted to new food and new air, will yield a different fleece. Nature has her way, and will not accommodate herself to the designs of legislators. Thus Australian wool has become the natural supply, especially for fine wool, in England and in the Continent of Europe; and, as we have seen, it is making its way into the United States in increasing quantities. Here is a region which Nature has made a well-nigh perfect pasture; and, in attempting to shut out its yield, the United States seem to deny themselves the benefit of Nature's providence.

The prices of wool have shown a declining tendency for the last ten or fifteen years. During 1871-73 there was a sharp rise; and in the next period of activity, in

1880-81, another advance. Since 1880 the price has tended downward the world over. The decline in the United States has sometimes been ascribed to the reduction of duty by the tariff act of 1883. But the reduction was too trifling to account for the change in price. The duty fell by perhaps two cents, and the price by nearly ten cents. The cause is to be found in the great increase in the volume of production, which was marked in the United States between 1873 and 1883, and, though checked with us since 1883, has continued in other parts of the world. The improvements in transportation, opening as they do new sources of supply, constitute the main force at work. The pertinent thing, however, is not so much that prices have risen or fallen, as that prices in the United States, whether rising or falling, have been from year to year higher than they were abroad. Since 1880 the fall in prices in the United States has been greater than the fall abroad, and the margin of difference has tended to become less. How far the price of ordinary domestic fleece has still kept above that of the same article in foreign countries is, to repeat what has already been said, very hard to state with any certainty.

So much as to the main features of the general situation, from which we may proceed to a review of the effects of the wool duties and the probable immediate effects of their repeal. In the first part of the period in which the duties of 1867 fairly exercised their effects,—the decade 1873-83,—they probably stimulated the rapid advance of wool-growing in the West. The opening of the country by railways contributed greatly to the growth, and doubtless would have brought about some growth in any event; but the comparatively high price which the duty helped to maintain had its share. These years were profitable to the wool-growers of the western ranches, as the rapid increase of production proves beyond question; and the increase of itself did much to bring the lower prices of

the period since 1883.* In that later period the first effects of the tariff seem to have exhausted themselves, and the price of ordinary wool has been at a more normal level, being, indeed, probably somewhat higher than the price of the same article in foreign countries, but not so much higher as in the earlier decade, and at times very little higher. The decline in price has checked the further increase of production. The advance of agriculture into the tillable lands has acted in the same direction.

If wool were admitted free, the price of the finer grades would fall at once to the foreign price of Australian wool. That foreign price might rise somewhat for a time, under the effect of an additional American demand, with a strong probability of soon going down to the former level as production in Australia and kindred regions met the new demand. The American grower would have to submit to a lower price at once, and a still lower price as time went on. Growers of fine wool on a considerable scale would find the fall hard, and might be compelled to slaughter their sheep and quit the field. But, as it happens, there are not many such. Much of the fine wool comes from the more thickly settled region, where farmers keep a few sheep as an incident to general tillage. Here sheep for wool already tend to give way to sheep kept mainly for mutton, and the result of lower prices for fine wool would be chiefly to hasten and complete this change. In the regions west of the Mississippi and Missouri, from which of late years an increasing supply of wool of good quality has been derived, the consequences would be less easily met by the growers. It is in this part—probably not very considerable—of the domestic industry that the tariff changes would be most likely to have serious economic effects.

*On the high profits of wool-growing in this period, see the instructive testimony of Mr. E. H. Ammidown before the Tariff Commission of 1882, in the *Report* of that Commission, pp. 1782-1785. Mr. Ammidown predicted the fall in the price of domestic wool which has since taken place.

As to the more common quality of wool, which forms the bulk of the domestic product, the effects of the repeal of the duty are less easy to foresee. The same reasons which made it impossible to speak with precision of the effects of the duty on price make it impossible to predict the effects of its repeal. But, certainly, they would not be of any catastrophic sort. Some decline in price would probably set in, discounted in advance, more or less, in expectation of the repeal. The decline would not be great. It has been often urged that no decline at all would appear, since the free admission of foreign wool would so stimulate the manufacture of woollens as to cause a more active demand for domestic material, and so a higher price for it. But this is too optimistic a view of the situation; while, on the other hand, the view which foresees ruin to the American growers is as much too pessimistic. The fall in price—probably moderate, possibly very slight—would increase the tendency to substitute tillage for pasture in those regions where tillage is possible, and to keep sheep for mutton rather than for wool. In the regions of deficient rainfall and permanent pasture some gradual change from sheep to cattle might take place; and perhaps the profits of the average wool-grower would be so little affected as to leave matters much as they were. In the long run the progress of settlement would probably lead, in any event, to a decline in wool production; and this change might be expected to be quickened in some degree by a lower price of wool. It would be rash to attempt a more definite statement: the event alone can tell how things will go, as indeed this alone will enable us to tell with certainty how they have been going.

So far as the arguments for and against protective duties on other grounds than their direct effects are concerned, the situation as to wool presents no complications. The political arguments have little play. It is difficult

to see how any gain accrues to the political or social spirit of the commonwealth from the growth of ranching and the evolution of the herdsman and cowboy; while the farmer's sheep are not a mainstay of agriculture. Protection to young industries, again, has no favorable field. It has, indeed, been asserted that, given time, the duties will result in the domestic production, at low prices, of every possible grade of wool,—a contention which rests, more or less unconsciously, on the reasoning of the young industries argument. But this is mere rhetoric. Though choice of breed can modify the character of the sheep and the wool, nature, not man, determines mainly what the fibre shall be. The sort of development which public aid can sometimes promote in industries fettered by tradition, yet presenting possibilities of mechanical progress, is here subject to the limitations of soil and climate. On the whole, it is hard to see that anything in the situation presents a case for exception to the general reasoning by which it is concluded that free trade secures the most advantageous adjustment of the forces of production.

Before leaving this part of the subject, the third class of wool on which duties are levied may be briefly considered,—carpet wool. The situation here is very simple. Practically all the carpet wool is imported. Practically none competes with a domestic supply. There are slight exceptions to be made to these general statements. Some domestic wool is used in making carpets, and those who produce it gain by the duty; but their clip is an insignificant part of the total production. Again, some part of the wool imported as carpet wool is used in making cheaper woollens, and so meets a demand by which the domestic growers might possibly profit; but this, too, is a small amount.

Carpet wool is a coarse material, coming to the United States mainly from China, the Argentine Republic, Rus-

sia, and Asia Minor. The list suggests the conditions under which it is grown. It comes from countries backward in civilization, where the sheep run half-wild. No choice of breed is made, and the wool on the animal is accepted as it grows. The wool-producer of advanced countries, like the United States, England, and Australia, secures a better fleece, commanding a higher price, by forethought and intelligence in choice of breed and care of the sheep, and without additional labor at all in proportion to the higher price. He confines his wool-growing, naturally, to the better qualities, so far as soil and climate bring them within his reach. Hence the coarser wool is supplied exclusively by importation from countries where commercial intelligence is as yet hardly awakened. This division of labor is a striking case of trade carried on under the conditions of different comparative cost; resting, however, not so much on the physical causes of difference, which Ricardo and his followers had chiefly in mind when they set forth the doctrine of comparative costs, as on differences in the intelligence and industrial quality of different races of men.

The imports of carpet wool are much the largest, in quantity and in value, of the three classes. They increase, too, with the steadiness characteristic of those parts of our foreign trade which are not affected by protective duties. Twenty years ago they were about 30 million pounds a year. Now they range near 90 millions. Their rapid growth is a sign and a measure of the growth of the carpet manufacture, which in turn reflects the extraordinary gain in material comfort secured by the American people in the last generation. The duty has made this source of comfort a trifle dearer than it would otherwise have been. It has been a simple revenue tax, not complicated by the existence of a competing domestic product. As a moderate tax on an article used largely by strata of the population which are not subject to excessive

taxation in other ways, it might be defended. As a matter of industrial policy, it is indefensible.

The retention of the duty on cheap wool after it had been imposed during the Civil War was probably due to the circumstance that, in the adjustment of 1867, the duty on carpet wool gave the manufacturers an opportunity of securing, under the guise of compensating duties, higher rates on imported carpets than they would have ventured to ask directly. In later years the framework of the act of 1867 has been retained, for fear that any break in it might endanger the whole structure. Notwithstanding the absence of any appreciable effect on the domestic wool-growers from the heavy importations of carpet wool, the eager champions of the growers have been restive under them, especially from the suspicion that wool imported in that class might be used for making cloths, as, in fact, some small fraction of it was. The wrangle between this element, on the one hand, and the carpet manufacturers, on the other hand, was particularly bitter in 1888-90, when the Republican policy on the tariff was crystallizing. The result in the act of 1890 was a compromise. The duty on carpet wool was made *ad valorem* instead of specific, being expected so to adjust itself automatically to the character and value of the fibre imported. The desire to placate the supposed representatives of the farmers, however, was so strong that the compromise was accompanied by various provisions intended to prevent evasion, and, in fact, serving to give importers and manufacturers unreasonable annoyance. As it stands in the act of 1890, the carpet wool duty is an ill-devised and ill-directed piece of legislation, unsuccessful in attaining its object of placating the farmers and indefensible on any of the grounds commonly taken in defence of the protective system.

II.

We pass now to the tariff on woollen manufactures. The variety in the duties is here much greater than with wool, and the complications of the industrial conditions are even more perplexing to the layman. Yet some of the more important aspects of the situation can be made out with clearness. It will suffice for their elucidation if we concentrate attention on the largest and most important branch of the industry,—the making of woollen goods for clothing.

As with wool, so with woollens, the framework of the act of 1867 has been retained intact. But the details have been changed more than has been the case with the raw material. And in the two revisions of 1883 and 1890 important advances in duty were made. It will be remembered that in the system adopted in 1867 a specific duty was imposed on all woollen goods, whose declared object was merely to make good to the domestic manufacturer the disadvantage of having his material taxed. Over and above this came the *ad valorem* duty, which was alone to protect him. The rate of protection stated in 1867 to be adequate was 25 per cent. The actual rate imposed was 35 per cent., the additional 10 per cent. being intended to offset the internal taxes then levied on the manufactures in various stages. Since 1867 this method of mixed duties, in which the specific rate is supposed to be simply compensating and the *ad valorem* alone to yield protection, has been maintained for every sort and quality of woollen article. But the specific duty has been shifted, upward and downward, in real or supposed correspondence with the variations in the wool duty. The *ad valorem* duty has also been moved, but always in the upward direction. Not only has the extra 10 per cent. been retained, notwithstanding the disap-

pearance of the internal taxes, but the rate has gone up to 40, 50, and even to 60 per cent. No part of the tariff system shows so plainly the change in temper between the Civil War and the present time among those asking protection. In 1867 it was thought necessary to minimize the apparent protection, and to demand but a moderate amount of "net" aid. Even in 1882-83 the advances in duty were not made prominent, and were combined with reductions to which attention was called emphatically. Not till 1888-90 was the doctrine of high and increasing protection openly and unflinchingly preached. The advances, both in 1883 and 1890, were made chiefly by splitting the duties; that is, by imposing a higher rate on the dearer qualities of goods than on the cheaper.

In considering the effects of this heavy and increasing protection, we may begin again by examining first the growth of production at home. On the progress of this there can be no such figures as to the annual variations of domestic production as were available in regard to wool-growing. We must rely mainly on the census figures, coming at intervals of ten years. These figures show, on the whole, a steady advance, but not a remarkable one, in the volume of the industry.

The opponents of the protective system have indeed sometimes found in them evidence of a positive decline of the manufacture, and have referred to this supposed loss, as they have to the decline in wool-growing immediately after 1867, in proof of the evil effect of the high duties on the very industries they were meant to help. The census figures as to the value of "woollen goods" of domestic make, for example, show a very slight gain from 1870 to 1880, and a positive loss from 1880 to 1890. But these figures indicate, in reality, not a decline in the industry as a whole, but a change in the methods of manufacture.

The discussion of wool duties and imports has already

involved some reference to this important change: the improvements in combing machinery and the larger and larger part which goods made from combed wool have taken in the woollen manufacture. Twenty years ago, when only wool of long staple could be combed, the "worsted" goods so made were commercially distinct from woollens, as they were kept distinct in the tariff classification. When combing machinery was applied successfully to wool of shorter and shorter staple, and much wool became available for the comb or the card at will, the distinction between woollens and worsteds became comparatively unimportant. In the United States the worsted manufacture, or rather the manufacture of woollen goods from combed wool, has gained what the manufacture from carded wool has lost. The former may indeed be said in one sense to be a creation of the tariff system. Before the Civil War there was virtually no combing machinery and no manufacture of worsted goods in the United States; and even in 1870 the industry was insignificant. It has developed with great rapidity in the last twenty years.

To get a fair test of the growth of the domestic manufacture of woollen goods as a whole, we must therefore take woollen cloths and worsteds together. Some general figures from the census returns may be grouped as follows: * —

<i>Value of Product, in Millions of Dollars.</i>		<i>Number of Employees.</i>	
1870 { Woollens, 151.0 } . .	173.0	{ Woollens, 77,870 } . .	90,770
{ Worsteds, 22.0 } . .		{ Worsteds, 12,900 } . .	
1880 { Woollens, 160.1 } . .	193.6	{ Woollens, 86,504 } . .	105,304
{ Worsteds, 33.5 } . .		{ Worsteds, 18,800 } . .	
1890 { Woollens, 133.6 } . .	212.8	{ Woollens, 79,394 } . .	122,994
{ Worsteds, 79.2 } . .		{ Worsteds, 43,600 } . .	

It will be seen that there has been a steady growth, but not a remarkable one. Worsteds, taken alone, have indeed advanced at a very rapid rate, especially from 1880 to 1890; but the loss in woollens has reduced the rate of

* A comparison of the number of spindles and looms would have been more satisfactory; but the census returns, so far as published for 1890, make no separate enumeration of these for woollens and worsteds.

progress for the two combined. The increase in the stated money value of the output must be corrected somewhat for the depreciated paper money of 1870, when gold was at a premium of about 20 per cent. But the better test of the number of persons employed indicates that the correction on this score would not seriously affect the result, so far as the general rate of progress goes.

There is another indication of the development of the manufacture, in some ways more significant than the census returns,—in the quantity of raw material consumed. The domestic production and the imports (setting aside the carpet wool) give the total quantity of wool used in making woollens.

It will be remembered from what was said in the first part of this paper that the rapid growth of the domestic wool product swelled this total rapidly until about 1883; while of late years the growth has been slower, the increase in imports barely making up for the decline in the domestic supply. In interpreting these facts, regard must be had to the rapid growth of other branches of the wool manufacture, such as the making of felt goods, hats and hosiery and knit goods, of which the last mentioned more particularly has grown with very great rapidity since 1880. But the great bulk of the wool used goes into the making of woollens and worsteds, and the total consumption is a sufficiently good measure of the growth of these main industries.* For obvious reasons, it is a better measure

*The total quantity of the principal materials used in the making of woollen and worsted goods, in the census years 1880 and 1890, was as follows, in millions of pounds:—

	1880.	1890.
Wool, foreign	45.2	54.7
domestic	202.5	228.3
Total	247.7	283.0
Shoddy	46.8	54.5
Cotton	26.5	41.0
Total	321.0	378.5

Some consideration of these figures, and of the qualifications with which

than the money value of the goods turned out, since this has been lowered, for the same quantity of goods, by the decline in the price of wool and the improvements in machinery. Taking one test and another, the evidence shows a growth in the industry more rapid in the earlier part of our period than in the later, and, for the quarter-century as a whole, not more than moderate. The advance has not been so great as that in the most nearly related textile industry,—the cotton manufacture; and it is not to be compared with that in two other great protected industries,—the manufacture of silk goods and that of iron and steel. It cannot be said to give proof either of any striking gain, such as might be cited to show the stimulating effect of the tariff, or of any marked failure, such as might be supposed to show its harmful effect.

With the volume and rate of gain in the domestic product of woollens, we may compare the volume of the imports. In the custom returns, three important classes of goods are enumerated which need to be considered in making such a comparison,—woollen cloths, worsteds, and dress goods. The first two are mainly for men, the last for women. But, as it was most in accord with the essentials of the situation to class together the domestic woollens and worsteds as one, so it is best to attempt no separation between the imported cloths designated by these names. As to imported woollens and worsteds, the impossibility of maintaining a real distinction has been made the greater by an episode in the history of the woollens tariff which shows what pitfalls beset the framer of intricate systems of duties, and which may receive some brief consideration.

In the act of 1867 "worsted" had been put in the same class with a number of other manufactures of wool,

they must be used, will be found on pp. 10, 11, of *Census Bulletin*, No. 169, from which they are taken. The census figures tell the same story of moderate growth as is given in the text.

—flannels, blankets, yarns, and others. On these there had been not a uniform duty, but one graded by value. If the value of the goods was not more than 40 cents per pound, the duty was 20 cents specific plus 35 per cent. ad valorem; if between 40 and 60 cents, the duty was 30 cents specific, with the same ad valorem addition; and so on, the specific duty rising as the value rose, until finally worsteds worth more than 80 cents a pound were subjected to the same duty as woollens. This gradation of the compensating duty was introduced because of the common use of cotton as warp in making the cheaper qualities of these goods. A specific duty on the basis of the use of wool alone in all cases would have been admittedly excessive. In 1867, when worsteds, with other goods, were subjected to this system, the distinction between them and woollens was still clear. Moreover, worsted cloths for men's wear were not then made in the United States. In 1883, when the woollens schedule was overhauled, the distinction had been largely done away by the changes in machinery already described; at the same time, the domestic manufacture by the new methods had begun. Nevertheless, the tariff act of that year still enumerated worsteds in the paragraph with blankets, flannels, yarns; and the graded duties were maintained.

The consequence was unexpected. While worsteds worth over 80 cents a pound were dutiable at the same rate as woollen cloths, those worth less were subject to lower rates. The fall in the price of wool and the improvements in machinery enabled them to be put on the market at lower and lower prices; and a large importation ensued of worsteds valued at less than 80 cents, and so subject to a lower duty than that on woollen cloths. It was asserted that the goods, moreover, were fraudulently undervalued, so as to bring them within the lower class; and probably this cause contributed to increase the quantity that slipped in at the reduced duties. Certain it is

that there was a large inflow of cloths classed as "worsted" because made from combed wool, yet competing as effectually with domestic cloths as if they had been called "woollens." The manufacturers naturally were exasperated at this breach in the elaborate barrier which they had erected against their foreign competitors, and endeavored to secure a ruling at the custom-house by which these articles should be rated as cloths and subject to a higher duty. The Democratic administration of 1885-89 refused to make such a ruling. The Republican administration which succeeded in 1889 was more complaisant, and caused these goods to be classed as woollen cloths, and so charged with a higher duty. Consequently, for a year the customs returns show a sudden increase in the imports of cloths and a sudden decline in those of worsteds. An appeal to the courts, however, soon brought a judicial decision that "worsted" was used in the tariff acts in a specific technical sense, meaning cloths made from combed wool. Thereupon Congress, in 1890, passed a special act, in advance of the general tariff act of that year, by which "worsted" were made dutiable at the same rates as "woollen cloths"; and so the tariff was at last brought into accord with the industrial conditions.*

It may not be amiss to remark that this episode brings out not only the incongruities of this part of the woollens schedule, but a very serious defect in method,—the gradation of duties by the value of the article. The same practice was followed in other parts of the schedule, and especially in the duties on dress goods, where the finer qualities, distinguished by their value above a certain figure, were subjected to especially high duties. In the act of 1890 the method was applied in many other direc-

*The columns of the *Bulletin of the Wool Manufacturers* for 1886-90 are full of discussions of this subject, and print various arguments presented to the Treasury Department to show that worsteds ought to be classified as woollens. They contain, too, some curious inquiries as to the responsibility for the slip made in the act of 1883.

tions. Unquestionably, it offers temptations to the undervaluation of goods which are demoralizing to the importer's trade. A slight change in the custom-house value of the goods may bring a sharp change in the duties; and what between intentional fraud, the difficulty of appraising the value of such articles, and the inevitable tendency to manufacture foreign goods in such a way and at such a cost as just to escape high duties, the system of gradation in practice works like a game of chance in which the unscrupulous are sure to win.

To return from this digression to the subject in hand,—the imports of woollen manufactures and their relation to the domestic production. The greater part of the domestic product is of goods for men, with which the imported woollens and worsteds compete. There is also a considerable and growing manufacture of fabrics for women, which is met by the imported dress goods. Whether we look at woollens and worsteds as one group, or at these two and dress goods taken together, we find a steady stream of imports, and little indication of any decline in the inflow. The stated value of the imports rises in years of activity, and falls in years of depression; but over long periods it remains at very nearly the same level. That of woollens and worsteds varies between 10 and 15 million dollars a year; that of dress goods, between 15 and 20 millions a year. In these times of falling prices for the raw material and diminishing cost of manufacture, the maintenance of the money value of the imports at about the same figure indicates, of course, a considerable increase in quantity. Comparing the imports with the domestic product of woollens, we find the latter to be much the greater, and to supply much the larger part of the total consumption. Making allowance for the duties and other charges on imports, it may be said roughly that what the consumers paid in recent years for imported cloths, worsteds, and dress goods, taken to-

gether, was about thirty-five per cent. of what they paid for imported goods.* Relatively, the domestic product has gained on the imports in the twenty-five years, and now supplies a larger part of the total consumption than at the beginning of the period. But the gain has not been very great; and the unabated volume of the imports, in face of high and increasing duties, shows that, in large part at least, protection has here failed to secure the end immediately in view,—the substitution of the domestic for the imported supply.

So much as to the relative volume of domestic product and of imports. More significant for our purpose is the character of the goods which the community obtains in the one and the other of these two ways. If the domestic and imported woollens were of much the same sort, and were sold side by side in the market, we should have an important clew as to the effect on the public of the whole system of wool and woollen duties. But, in fact, the two are very different; and the differences are such as to leave us little satisfactory evidence on the real working of the protection given the woollen manufacture. Much the largest part of the supply of woollen cloths furnished by the American manufacturers is of the cheaper sort, worn chiefly by the less well-to-do, and bought by them commonly in the form of astonishing bargains in ready-made suits.† No such goods are imported. The foreign wool-

*The total imports of these goods in 1890 were valued at the custom-house at about 40 millions of dollars. Duties on them ranged from 70 to 90 per cent., and some allowance must be made for undervaluation and for shipping charges. The total money value which the imports stood for when they reached the first American hands was hardly much less than 80 millions. With this sum may be compared the census return of 212 millions as the value of the domestic product of such goods.

† In 1884 Mr. John L. Hayes, then secretary of the Wool Manufacturers' Association, wrote in their *Bulletin* (vol. xiv. p. 116): "The woollen manufacture of this country, although capable of producing commodities of the highest luxury, . . . is almost wholly absorbed in production for the masses. Nine-tenths of our card-wool fabrics are made directly for the ready-made clothing

lens are of finer quality, bought mainly by those in easy circumstances, and more likely to be made into garments to order. The higher duties which were imposed on the more expensive qualities of woollens in 1883 and again in 1890 have indeed brought about of late years some isolated ventures in the domestic manufacture of finer cloths; but the competition with the importer is not yet very serious, and the line of demarcation between domestic and imported goods is still distinct. The same is the case with women's dress goods, which are the largest single item in the imports of manufactures of wool. There is a growing domestic manufacture of the cheaper and less attractive sorts. The dearer and finer continue to be imported, notwithstanding very high duties.

Thus, as to the bulk of American woollens, we have no certain test of the direct effect of the duties or the extent to which they operate as taxes on the consumers. The material of the clothes worn by the great majority of the community may be considerably dearer than the foreign article of the same quality, and yet be shielded from competition by the barrier of the high duty; or it may be no dearer at all. That the latter is the case has been often asserted by the advocates of protection.* But it is

establishments. The manufacture of flannels, blankets, ordinary knit goods, occupies most of the other mills engaged in working up carded wool. The dress goods manufactured are made almost exclusively for the million, the women of the fashionable classes supplying themselves by French importations." The quality of American wool and woollens has been improved since this was written; but that the situation remains in essentials as it was, see an article in the well-informed *Boston Journal of Commerce*, January 18, 1890.

*Thus, in a public statement addressed to the Secretary of the Treasury (Mr. Manning) in 1885, the Wool Manufacturers' Association said that the cheaper grades of woollens which supplied nine-tenths of the clothing of the male population were "sound goods," made of staple American wool, and, "considering their more serviceable character, practically as cheap as foreign cloths to their buyers abroad." This assertion of the more serviceable quality of the American goods is common, and leaves it clear that their price is higher, at least in appearance. As to quality, it is probably not true that they are a whit better. American cotton goods are usually better than foreign goods described under the same name; but woollens are not.

more than doubtful whether the duties are so innocuous and unimportant. The material of the goods in question is the staple American wool, with more or less admixture of cotton and shoddy. The wool, as we have seen, is probably somewhat dearer than similar material in countries admitting it free of duty; and by so much the domestic woollens must be dearer. But it is impossible to say with any exactness what must be allowed for this excess, representing the effect on the consumer of the wool duty alone. Whether the duties on woollens, taken by themselves, exercise an independent effect, must depend on the cost of manufacturing the material into cloth in this country as compared with foreign countries, and especially with England. How much this expense and the consequent difference in selling price vary in domestic and foreign mills, even the persons best informed in the minutiae of the trade would find it hard to say.

A certain answer to the question just suggested would be given only if both wool and woollens were admitted free of duty, and American and foreign manufacturers competed under equal conditions in a free market. Such a state of things is not likely to come at any time in the visible future. But free wool and a comparatively moderate duty on woollens are among the possibilities of the next few months; and the results of this change are not so difficult to forecast. A duty of 25 or 30 per cent. would probably leave much the greater part of the American woollen manufacture as it is. The lower price of wool would bring down the price of woollens. The easy choice in using foreign wool might have a further effect on the quality of the goods commonly made. No considerable importation of the cheaper grades of foreign fabrics would be likely to ensue.

As to the finer goods of which there is continued importation for men's use, and still more for women's, the situation is different. Here we have the certain proof

that the taxed article, whether imported or made at home, is raised in price by the full amount of the duty. The domestic product, to be sure, is not large in amount; and, while as a rule it is nominally cheaper, it is correspondingly less desirable, and able to maintain itself in the market only because the foreign competitor is so heavily handicapped. The same conditions which were assumed a moment ago — free wool and a moderate duty on woollens — would bring a large reduction in the price of those more luxurious and in many ways also more serviceable cloths. The fact that the American manufacturers, notwithstanding high duties continued during a generation, have been unable to secure any large part in the market, would seem to show conclusively that the cost of making the better cloths is much higher for them than for their English, French, and German competitors. A very low duty might be expected to wipe out this part of the woollen industry; while a duty of even 85 or 40 per cent. would make its future at least uncertain.

That this result would ensue, however, is emphatically denied by most of those who advocate an incisive change in the woollens schedule. It is urged, on the contrary, that the new system would stimulate rather than check the domestic manufacture of finer goods. The cause of the limitation of the industry as it stands now, is said to lie in the tariff restrictions under which the manufacturer labors in his choice of material; and the removal of the duty on wool is expected to enlarge the range of his operations. This prediction raises the questions most difficult to answer in regard to the effects of the present *régime* and the results to be expected from that impending.

Undoubtedly, it is true that the wool duty hampers the manufacture of the better goods much more than that of the cheaper, and offsets in good part the effective protection given the former. The fine wools, as we have seen, are not produced in sufficient quantity within the country,

and are imported largely from Australia. Here the specific duty on woollens is really needed for compensation; and, of the total accumulation of duties on the manufactured article, the specific portion is chargeable to the wool tariff alone. On some of the finer dress goods, the compensation in late years has probably been excessive; but on finer woollens and worsteds this has not been the case, and, indeed, on worsteds it was for a time probably not enough to offset the wool duty. On the goods commonly made in the United States, however, the specific duty has always been needlessly large, and has made the real protection much higher than the nominal ad valorem rate. The higher net protection so given is sometimes supposed to have brought higher profits to the makers of the cheaper goods, and to explain the commanding place they have in the domestic manufacture. But the explanation has little support from general reasoning or from experience. *A priori*, in an industry divided among many establishments and presenting hardly a possibility of combination, competition might be expected to prevent any permanently heavy profits, even though duties were very high; and, in fact, the period immediately following the imposition of the higher duties of 1867, in which large gains might conceivably have been reaped, happened to be one of depression and discouragement. The higher protection of the cheaper woollens simply made the duties on them more effectually prohibitory, and veiled more completely their real incidence and effect. On the other hand, so far as the finer goods are concerned, the duties, even after setting aside the specific part as of no advantage, have still been high enough to give substantial encouragement. The specific duty would seem at least to have performed its function of making good the damage caused by the wool tariff; and there remains the ad valorem rate of 35, 40, now even 50 per cent. This is still a heavy rate of protection; and the question recurs, Why have twenty-

five years of heavy protection brought about so insignificant a development in the manufacture of the finer goods?

The necessity of the freest choice of material, and the hampering effect which, notwithstanding every effort at compensation, a restriction in the selection of wool exercises, have been dwelt on with such emphasis, both by the advocates and the opponents of the existing system, that the layman must admit the weight of this factor in the situation.* With wool on the free list, manufacturing would be carried on under conditions so fundamentally different from those of the present that a complete overturn cannot be declared impossible or even highly improbable. It may be, as we are told so confidently by those who find in the present system a cause of ruin to the wool industry, that no measure of compensation, devised though it be by the manufacturers themselves, can prevent the duty on the raw material from embarrassing them. The whole system established in 1867 has been described again and again in the columns of the *Bulletin of the Wool Manufacturers* as unsatisfactory in

* See, for example, the report of the wool manufacturers to Secretary Manning in 1885, printed in the *Bulletin of the Wool Manufacturers*, vol. xv. pp. 213-216. Compare the weighty remarks of Mr. E. O. Page in an excellent pamphlet on *The Woollen Tariff*, reprinted from the *American Wool and Cotton Reporter*, 1893. The most emphatic assertion from the other side of the evil effects of the wool duty comes from Mr. J. Schoenhof, especially in *The Destructive Influence of the Tariff*.

Mr. Page, in the pamphlet just cited, says: "I fear many manufacturers do not fully realize even now how much improvement and economy is to be accomplished by making their goods from a mixture of the stocks most exactly suited to the qualities the goods are to possess instead of from the makeshifts which our meagre market has hitherto afforded. I have been shown in an English wool manufacturer's house a mixture or blend of no less than fourteen distinct and different varieties of wool, from which is made a simple woollen fabric in which at home no more than two or three qualities are used. . . . It cannot be denied that the virtual prohibition of the use of two-thirds of the world's wools to the American manufacturer during thirty years of tariff discrimination has deprived him of the knowledge necessary to success in this most important branch of the manufacture [the selection and mixture of wool]."

itself, and submitted to only because the retention of the duty on the raw material was essential to the maintenance of the protective policy as a whole. In the face of such statements, it must be admitted to be possible that the privilege of using at will any and every quality of wool, which has been virtually denied the domestic manufacturers for a generation, may enable them to turn out many sorts of goods, fine as well as cheap, at prices which will enable them to meet foreign competition with the aid of but a moderate duty.

On the other hand, there is a line of reasoning which points to less optimistic conclusions. In general, it may be laid down that American producers cannot hold their own in competition with foreign unless the labor and capital applied by them are more efficient,—unless they have a comparative advantage in production. To the individual business man this is the obvious consequence of the higher range of wages in the United States. Paying higher money wages, the manufacturer must be undersold by his foreign competitor unless the labor he employs is more efficient in proportion to its greater expense. For the community at large the higher range of wages simply means that industry in general is more productive; and the inability of any one branch of industry to maintain itself because its competitors abroad can get labor cheaper, indicates that the productive forces are applied to less advantage here than in branches which are not affected by such competition. So far as manufacturing industries are concerned, the evidence is ample that a wide range of them possess a comparative advantage, and would maintain themselves without the aid of duties. The cause of advantage may be greater cheapness of the material, or greater opportunity for the exercise of discretion and intelligence by the workmen, or greater ingenuity in the machinery and methods of the business leaders, or all these combined in greater or less degree. Usually,

the cause of advantage is that the American industry has taken the lead in the advance of the arts, and is superior to foreign rivals in inventions and labor-saving appliances.

Examining the woollen manufacture from this point of view, we find occasion for doubting whether the *régime* of free wool will so affect it as to bring the necessary conditions of comparative advantage. So far as the present writer is informed, the Americans hitherto have followed rather than led in it. The new inventions, the improvements, have been first made abroad, and in this country have been imitated more often than carried to further perfection. This is more especially the case in the worsted manufacture. In making cloths from carded wool, it is said that there is no superiority in machinery abroad; while here, as in the cotton manufacture, the mechanism of the loom seems to have been carried to its highest perfection by Americans. Yet, on the whole, there seems to have been little of that revolutionary enterprise which has been shown in other directions. In the making of boots and shoes, of fire-arms, of sewing-machines, of hardware generally, of wooden ware,—to mention only some of the most conspicuous cases,—American producers have come to the fore, without any aid from protection. In other industries much affected by the tariff, as the manufacture of silks and of steel, there has yet been a marked initiative and a promising boldness in new methods and new machinery. In the woollen manufacture such independent advance is little heard of. We need not accept as typical of the situation the stories of second-hand and discarded English machinery bought for use in American mills. Such cases can be only sporadic. But there is no indication that Americans have taken the lead. The manufacturers themselves inform the legislature that “it is the one textile manufacture in which it has not been possible as yet for Yankee ingenuity to excel the products of countries which have been engaged for centuries in devel-

oping the industry." * The greatest single change of recent times has been the perfecting of combing machinery,—the last stage in the long process by which the hand-comb of older days has been supplanted by the modern machine-comb; and this advance was achieved in England and on the Continent.† We are often told that American mills are as well equipped as English, but few venture the assertion that they are better equipped. In one direction only is there evidence of marked initiative and superiority among Americans,—in the carpet manufacture,—where, before the Civil War, a great inventor put the industry in the United States on a new and independent basis.‡

Further, there is ground for saying that, so far as finer woollen goods are concerned, the conditions are not favorable for a triumph of Yankee invention and ingenuity. In the testimony given before Congressional committees we encounter again and again the statement that finer woollen goods call for more labor and a larger proportion of labor cost than cheaper goods and than manufactures generally. This means, when translated into the language of economists, that previous labor embodied in machinery plays a less part, and direct labor in guiding the machin-

* This is the language of the brief laid before the Ways and Means Committee by the National Association of Wool Manufacturers in September, 1893.

† The history of this typical change in manufacturing art can be followed in the pages of James's *History of the Worsted Manufacture in England* (1857) and Burnley's *History of Wool and Wool Combing* (1889).

‡ I refer to Mr. E. R. Bigelow, the inventor of the power-loom for carpets, known to economists as the author of an able defence of the protective policy, *The Tariff Question* (Boston, 1862).

I have said nothing in this paper of the carpet manufacture, the next most important branch of the woollen manufacture after woollen and worsted cloth. The imports of carpets have practically ceased. The domestic production is enormous, and commands the field. The duties have been so long prohibitory that there has been no possibility of effective comparison of the price and qualities of foreign and domestic carpets. The indications are that the carpet makers can face lower duties with as much confidence as any among the woollen manufacturers.

ery or manipulating the material plays a larger. In making finer woollens, we are told the raw material must be more carefully sorted, selected, and prepared. The machinery can run at less speed and less continuously. The operative must stop it more often to repair the thread and insure the nicety of every stage in spinning and weaving. The cloth must be more laboriously gone over for imperfections. These conditions are not favorable for the rapid action, the continuous use of machinery, the economy of direct labor, by which American mechanical genius has achieved its greatest results. In making cheaper woollens, we are told that production can be more automatic, and that American mills run their machinery faster than European. Such a difference suggests that the manufacture of cheaper woollens would meet foreign competition more easily than that of finer.

The conditions are similar in the cotton manufacture. There it seems to be certain that the cheaper grades of cotton goods, which form by far the most important part of the industry, can be made as cheaply in the United States as in any foreign country, notwithstanding the higher wages bill; partly because the material is cheaper, partly because methods and machinery are better. Finer cottons, on the other hand, are more cheaply made abroad, because, in the language of the business man, they entail a larger proportion of labor, which means, again, that labor embodied in machinery can supplant in less degree the application of immediate labor. In both these great branches of the textile industries, we thus find indications that, in the present state of the arts, the making of the more expensive grades of goods presents conditions not the most favorable for mechanical ingenuity and success, and so not promising for the American producer when exposed to unhampered foreign competition.

Whether free wool will vivify the whole woollen manu-

facture; whether a sharp reduction of duties on woollens will prostrate it; whether some parts will prosper while others go to the wall,—all this the event alone can tell. The more conversant the unbiassed searcher for truth becomes with the facts of the situation, the more must he hesitate to accept any one of the confident but contradictory predictions as to the outcome of radical changes. But it seems to be reasonably clear that such legislation as is likely to come in the visible future will not work any catastrophe. Free wool, with a duty on woollens ranging somewhere between 25 and 35 per cent., would enable the bulk of the woollen manufacture to hold its own, and would give the rest at least a fighting chance. The first effects of a radical change could not but be unsettling, especially with the process of experimenting which must be gone through before it can be known what changes in the price and selection of wool will result from its free admission. In view of the novelty of the conditions which will confront the manufacturers with wool free, it might be the part of sound policy to make the duty on woollens somewhat higher at the outset than it was proposed to make it when the lapse of a year or two had enabled them to see what the situation really proved to be as to their raw material. After a season or two of such transition, it will be more plain what the new *régime* will really bring; and then only can we know what the *régime* of the past had been doing.

Meanwhile, wool will be somewhat cheaper, and woollen cloths will be cheaper, too, though in varying and uncertain degree for different sorts. The consumer cannot fail to secure some degree of advantage; and those who believe that he is the main person whose welfare the legislature is called on to consider in matters of tariff policy, can look forward to the coming changes with confident expectation of some solid gain.

F. W. TAUSSIG.

THE PLACE OF ABSTINENCE IN THE THEORY OF INTEREST.

RECENT discussions have reduced the theory of value to an equilibrium between marginal cost, on the one hand, and marginal utility, on the other. Nothing is more fundamental in economic science than that the two elements of cost and utility are both necessary to the existence of value. So much has uniformly been held since the beginnings of Political Economy. The special service of the marginal utility theory has been to point out the way in which these two factors co-operate to fix value. By reducing to a common subjective basis those two unlike things which older economists had tried to balance against each other,—namely, demand and supply,—this new theory has done much to give harmony and logical consistency to economic science. Value, however, is not the only economic phenomenon to which the time-honored law of demand and supply has been applied. Interest and wages are so intimately connected with the conception of value that they are of necessity affected by the same principles which determine value. To these questions the law of demand and supply has been applied as rigorously as to the question of value. Nothing would be more readily admitted by all economists than that, if capital increases and the demand for capital decreases, the rate of interest will fall, and *vice versa*.

It is not so generally admitted in the case of interest, however, that the demand and supply are themselves regulated by the same principles which regulate them in the case of value. According to the new theory of value, if the desire for a commodity remains the same, but the production of it, through mechanical improvements or for

other reasons, becomes cheaper, the supply will increase until the marginal utility of the commodity is reduced to a level with the marginal cost or disutility of its production.* If, on the other hand, the conditions of production remain unchanged, and, through the acquisition of a higher standard of life, the desire for the commodity increases (which means that a given quantity of the commodity satisfies a more pressing want than before), the marginal utility will be raised and production will increase until the increased marginal cost again balances the marginal utility. The value of a commodity according to this theory is simply its marginal or effective utility.

To have a correct understanding of the nature of interest, we must first get a clear understanding of the nature and function of capital. Especially must we have a clear conception of the distinction between capital and wealth. It is doubtful if any improvement can be made upon the classical conception of capital as that portion of produced goods *saved* to be devoted to purposes of further *production*.† This, so far as the question of interest is concerned, is all that is implied in the term. Capital, according to this definition, is produced by an act of saving. In other words, portions of the general fund of wealth only fall into the category of capital by having their consumption deferred, in order that they may assist in producing more wealth.

When we speak of the cost of production of consumption goods, we mean the disutility or sacrifice involved in bringing them into shape for consumption. This disutility is measured by value, or, if we seek a money measurement, by price. But with capital goods a new element enters into the cost of production; namely, the disutility of abstinence. While, as general economic goods, they have their price to compensate for their cost of production, yet,

* This, of course, supposes competition.

† That is, production from the individual standpoint.

as capital goods, interest serves to compensate for the sacrifice of deferring their consumption till the future. When we speak of the utility of consumption goods, we mean their capacity to satisfy wants. But the distinctive utility of capital goods is to increase the quantity of consumption goods. Interest likewise measures this distinctive utility of capital goods, just as exchange value expresses the general effective utility of consumption goods. The cost of production of capital, as distinguished from wealth, is, therefore, abstinence; and its utility is its productivity, or the surplus of want-satisfying power which its possession affords above its cost. If we keep the distinct conception of capital as the result of saving, we shall have no difficulty in seeing that its distinctive cost of production is whatever sacrifice is involved in the act of saving, and that its distinctive utility is its ability to produce a surplus. We may observe that the amount of disutility of saving depends largely upon the cost of production of consumption goods. Where industrial processes are unadvanced, and the disutility of producing consumption goods is great, such goods are likely to have a high marginal utility, and it will cost a high degree of sacrifice to abstain from the consumption of goods which supply such pressing wants. Or, looking at it from another standpoint, it will cost a high degree of sacrifice to turn part of the productive force from the production of things for consumption to the production of things to be used in further production. Where present wants are pressing, it costs a high degree of sacrifice to defer their satisfaction to the future. If, on the other hand, industrial methods are advanced, if production is cheap, and if marginal utilities are low, present wants will not be pressing, and a certain amount of saving can take place with little or no sacrifice.

Walker's primeval fisherman (*Political Economy*, third edition, chap. iii.) would endure a much greater degree of abstinence while making his canoe if fish were scarce

than if they were abundant. If fish were scarce, it might require all his time to catch enough to supply his daily needs. Under such circumstances it would cost him a severe privation to spend a part of his time in making himself a canoe. In order to induce him to do so, he would have to be assured of a considerable increase in his catch by means of the boat. In other words, he would not undergo the present heavy sacrifice to produce capital unless his capital were highly productive. But, if fish were so abundant that he could supply his present wants tolerably well by working only half his time, he would probably take time to make a canoe for the sake of a much smaller proportional addition to his catch.

Interest, as we hope to show, is the price that measures the marginal productivity, on the one hand, and the marginal cost or sacrifice, on the other. It ought to be clear that, were either the elements of cost or productivity lacking, interest would be as impossible as value with either cost or utility missing; but it is not clear to some. But, meanwhile, it must not be forgotten that it is only marginal productivity and sacrifice in the one case and marginal utility and cost in the other that determine either interest or value.

Many of the writers on interest who have gone below simple demand and supply may be put into one of two general classes: 1. Those who hold that interest is paid because capital is productive; 2. Those who hold that it is payment for abstinence or the sacrifice of saving. When we read the arguments of the one class, we cannot see but that they are right. When we undertake to find fault with the arguments of the second class, we find it a difficult matter to point out their fallacy. The conclusion almost forces itself upon us that both are right. Under such circumstances we shall do well to ask if there is any real contradiction between them. We shall probably find that both theories are in part true, and, moreover, that

each is an essential part of the other; that neither can account for interest without the help of the other.

Professor Böhm-Bawerk's theory of interest, while ostensibly an attempt to reduce the whole interest problem to the one element of abstinence, or the discounting of the future, really contains the productivity theory under a new form.* In his theory of the profits arising from an extension of the productive process † we can scarcely fail to recognize the old productivity theory under a new form. Nevertheless, the attempt to reduce the productivity of capital to the same terms with abstinence, by showing that both result from the fact that men discount the future, is to be admired both for its suggestiveness and its profundity. With certain corrections, which will be noticed later, his theory may be regarded as correct; but it is to be hoped that the interest problem can be explained upon principles more easily understood by the average reader.

Under "naïve productivity theories of interest" Böhm-Bawerk naïvely suggests ‡ that the theory that capital produces a surplus value rests upon the mere empirical observation that the employment of capital is followed by a surplus value, and that this fact does not necessarily prove that the employment of capital is the *cause* of the surplus value. Without going into a metaphysical discussion of the relations of cause to effect, may we not venture to suggest that, for economic purposes, the fact that a surplus value does follow the use of capital amounts to precisely the same thing as though the capital were, in an unequivocal sense, the cause of the surplus value? To the borrowing classes the fact that the possession of capital affords them a surplus value furnishes the same motive as though the capital could, in a biological sense, reproduce

* See F. A. Walker, "Dr. Böhm-Bawerk's Theory of Interest," *Quarterly Journal of Economics*, July, 1892.

† *Positive Theory of Capital*, Book VI. chap. iv.

‡ *Capital and Interest* [Smart's translation], p. 133.

its kind. What they want is this surplus value: it is immaterial to them whether it follows as a result of, or as an incident to, the employment of capital. So long as the acquisition of this surplus value is conditioned upon the possession or control of capital, interest will be paid. By admitting that a surplus value follows the employment of capital, all is admitted that those who hold to the productivity theory will be disposed to claim.

But, while men are willing to pay interest for capital to assist them in securing a surplus value, it is only for a limited amount. The operation of the law of diminishing marginal productivity limits the amount of capital which any individual can afford to employ at a given price. The same is true of all those engaged in the production of any given commodity. The tendency is to increase production until the diminished price of the commodity is just sufficient to pay the costs of the last increment. Since interest is a part of the cost of production, it follows necessarily that the amount of capital employed at a given rate of interest must be limited, and that the limit having been reached, other things remaining the same, if more capital were brought into that occupation, interest must fall, because the productivity of the added increments is less than that of the preceding. What takes place in an individual industry may be applied to industrial society in general. We therefore come to the conclusion that an essential part of the productivity theory is the idea of ∇ marginal productivity,—an idea so well developed by Professor Clark.* If the rate of interest throughout the entire industrial field cannot rise permanently above the productivity of the last increment of capital, and if the marginal productivity of successive increments of capital tends at any given time to decrease, it follows that, other things remaining the same, an increase of capital will

* "Capital and its Earnings," *Publications of the American Economic Association*, 1888.

be accompanied by a fall in the rate of interest, and *vice versa*.

We now come to the difficulty that confronts us in attempting to account for interest on the productivity theory alone. It follows from the foregoing conclusions that, if capital were to increase in an unlimited measure, marginal productivity would be destroyed. If, as indicated above, the rate of interest cannot rise above the productivity of the last increment of capital seeking employment, and if the productivity of successive increments of capital, under given conditions, continually decreases, it follows that, if a sufficient number of increments are put on the market, marginal productivity will finally reach the zero point, and no interest will be paid. It is conceivable that there might be a society with such a superabundance of capital that no more could be profitably employed at any price. Under such conditions there could be no true interest. Whatever might in individual cases be paid by the borrower of consumption goods would be payment for risk, and partake of the nature of insurance. Now, what is it that keeps capital from accumulating in such abundance? *Were there no sacrifice to balance the advantage accruing from the receipt of interest, would not capital accumulate, and be offered on the market even at the lowest conceivable rate of interest?* If it is a matter of complete indifference to me whether I consume a certain amount of my wealth to-day or next year, I shall surely save it till next year, if meanwhile I can either employ it profitably myself for purposes of further production or lend it at interest to some one else who can.

Some confusion has previously arisen by restricting the term "interest" to that which is actually paid from one man to another for the use of capital. This view overlooks the fact that interest forms an element of cost when the entrepreneur owns his own capital, just as when he hires it of some one else. In view of this fact, we may avoid con-

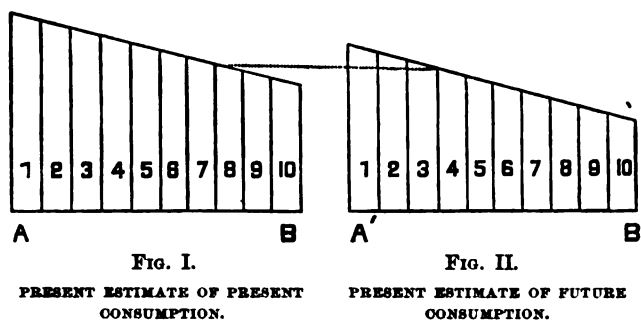
fusion if we agree, for the purposes of this discussion, to use the term "interest" as synonymous with the profit, or objective surplus, arising from the employment of the last increment of capital. It is only in this sense that interest can be said to enter into cost of production. If this is borne in mind, it will save us the confusion that might otherwise result from the apparent shifting from one standpoint to the other during the remainder of this paper.

It must be borne in mind that not all saving involves sacrifice. There would be some saving, were there no interest or objective surplus arising from the employment of capital. It is even probable that a considerable amount would be saved if, instead of savings affording a surplus, men were obliged to pay rent for vaults in which to store them or even to hire others to take their surplus wealth and use it for them. In so far as it is true that men estimate present higher than future consumption, it only applies to the consumption of corresponding increments of income. A man with an income of ten thousand dollars a year derives less utility from the consumption of the last than from the first thousand. He may receive so small an amount of pleasure from the consumption of the last thousand dollars that he will prefer to save it for the purpose of satisfying a more pressing want in the future.* It is upon this principle that men lay up for a rainy day or for old age. This may be illustrated by the diagram on the following page.

In Figures I. and II. let the amount of a man's income be measured along the horizontal lines AB and $A'B'$. Let the utility of different increments be represented by the perpendicular lines, those in Figure I. representing the present utility of present increments of goods, while those in Figure II. represent the estimate which we now put upon the utility of the same or equivalent increments of

*For this, as for several other suggestions, I am indebted to Professor J. B. Clark's lectures at Johns Hopkins University in the fall of 1892.

goods a year hence. In other words, we discount the future at a rate corresponding to the ratio between the perpendicular lines in Figure I. and the corresponding lines in Figure II. It is evident, then, from the diagram that increment No. 10 would be saved, in order that it might be applied to the satisfaction of want No. 1 in the future. Similarly, No. 9 of the present would be saved because No. 2 of the future is higher. The same may be said of No. 8 of the present because it does not quite come up to No. 3 of the future. But here saving would stop; for there would be a loss in abstaining from the consumption of No. 7, in order to apply it to No. 4 in the future.



This diagram, it will be understood, only illustrates a certain social tendency. In a less advanced stage of society than that to which we are accustomed the difference between the estimations of present and future would be greater than under present conditions. Even in present society there are those to whom the future seems to offer small inducement for present frugality. On the other hand there are those in whom the instinct of saving is so strong that they seem to begrudge themselves present satisfaction, and that, too, without much thought of future consumption, but simply to gratify their desire for accumulation. But the normal tendency is probably illus-

trated by the man who looks forward to the time when he will have greater wants to supply on account of a growing family, or the hope of some time having a growing family to provide for, and who also looks forward to the time when age will begin to tell upon his powers, and the same income will have a larger marginal utility, owing to the increased pain of producing it. Neither in the case of this man, nor in that of the miser, is there any true sacrifice connected with saving. His capital costs him nothing; *i.e.*, it cost him nothing to transform a certain portion of his wealth into capital. That amount which a man would save, whether there were interest or not, is not saved at a cost. As capital, it is not produced at a cost, unless this cost be in the form of risk, which may be involved in its employment in production.

If only so much were needed to carry on industry,—*i.e.*, if so much were sufficient to bring down the marginal productivity to the point where it would just pay the capitalist for his risk,—there would be no true or net interest. But, if more is needed,—*i.e.*, if more can be used, and still afford profit at the margin,—it must be paid for, because to save it requires sacrifice from somebody.* Returning to our illustration, if increment No. 7 is required, it will be saved at a loss, because its present utility stands higher than our present estimate of the utility of No. 4 in the future.

In this connection appears a possible correction to Böhm-Bawerk's theory, according to which interest must equal the amount by which men discount the future, or the difference between the value of present and of future goods. The statement that "present goods are, *as a rule*, worth more than future goods of like kind and number," † would carry with it the statement that a dollar now is

* See Marshall, *Principles of Economics*, first edition, vol. i. Book VIII. chap. vii. § 4.

† *Positive Theory of Capital* [Smart's translation], p. 237.

worth more in present estimation than a dollar a year hence. If we eliminate the element of risk, as he expressly states that we must do, it can scarcely be said to be true that, *as a rule*, a dollar is worth more to-day than a year hence.

Of the wealth in the possession of society to-day it is altogether probable that the greater part would be saved for more than a year, even if there were no objective surplus to be secured by so doing. In other words, so far as concrete goods are concerned, their future value is sometimes greater than their present, because they are expected to supply a more pressing want in the future than it is possible to apply them to in the present. In such cases there is a high reward for saving in the anticipated future increase in the subjective utility of the goods. This class of goods may be called the first increment of capital saved. It is that portion which would be saved even if its owners should be compelled to hire vaults, at an objective cost, in which to store it. The second increment may have a lower anticipated future increase of utility than the first; but its future utility may still be estimated just as highly as its present utility, while the saving of the third involves a positive sacrifice, because its future subjective utility is estimated as lower than its present, that of the fourth still lower. In this case, the decrease of subjective utility must be compensated for by an increase in objective goods. It is not the difference in the general estimation of present and future goods which fixes the rate of interest, but only the difference in the estimation of the present and future value of the last increment of goods saved.

If in Figure III. we let the angle of descent of the line A C''' represent the rate at which, according to Böhm-Bawerk, men discount the future, and let the line A B represent the present value of a commodity, the line C B' would represent our present estimate of its value a year

hence, $C' B''$ its estimated value two years hence, and so on. According to this theory, one year's interest ought to equal the dotted line $A' C$, two years' interest the dotted line $A'' C'$, and so on.

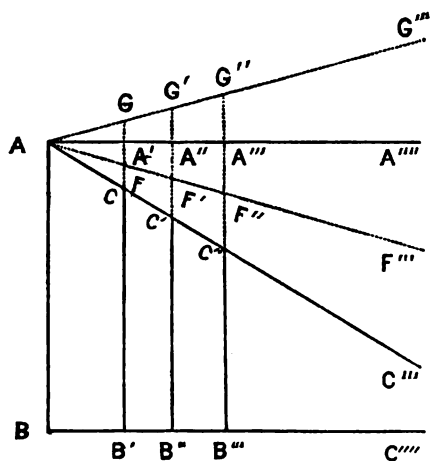


FIG. III.

In the first place, as suggested above, it is not correct to speak of a general discounting of the future use of commodities, or concrete goods. In a great many cases, the future use of a commodity is estimated higher than its present use, because present wants are so well supplied that the marginal utility of present consumption is very low. Suppose, for example, that you have one hundred dollars in your pocket. You can spend it all to-day on your dinner; and you might, could you forget the future, get some satisfaction out of the consumption of the last dollar. But you do not forget the future; and the amount of pleasure which you could get out of the expenditure of the last ninety-nine dollars and fifty cents is so small that you prefer to save it, in order that you may enjoy a series of ordinary dinners in the future. You would save it, were there no interest to be had. In fact, if you could

not keep it yourself, you would hire some one to keep it for you rather than consume it now. Yet, if you choose to lend it, you can get just as much interest for it as though it had cost you a heavy sacrifice to abstain from consuming it. Nevertheless, you doubtless have a more vivid appreciation of present than of future wants. There is a point at which you will stop saving, because you do not expect ever to be in a position when an ordinary dinner will be worth more to you than it is now. You will probably not forego the pleasure of a fifty-cent dinner and content yourself with a fifteen-cent lunch, in order to be better provided in the future, because you never expect to be in a position when you cannot afford a fifty-cent dinner. Were you a spendthrift, you would probably not hesitate to spend several dollars on expensive delicacies and fine cigars for the same reason. The spendthrift's appreciation of the future is very low. Your case may be taken as typical of society as a whole. There is a certain point where, were there no interest or profits from the use of capital, saving would cease. That point would be where men balanced present against future consumption; in other words, where the subjective utility of present and of future goods is equal in present estimation. But if the use and employment of capital becomes productive, and the amount of capital in existence under these conditions were not enough to bring its marginal productivity down to the zero point, there would be a demand for more capital. In order to get it, interest in the form of an objective surplus would have to be paid to induce men to save more. This would be the case whether we assume a distinction between the capitalist and the entrepreneur, or that the entrepreneur is his own capitalist. In the latter case, the entrepreneur would count his abstinence as a part of the disutility or cost of production, and would reward himself for it. Consequently, interest does not correspond to any general discounting of future con-

sumption of commodities, but only to the marginal discount or to the marginal sacrifice of saving. It must be sufficient to compensate the capitalist for saving the last increment of capital.

This also may be illustrated by Figure III. Of the first increment of goods saved, let the present value be represented by the line AB . The present estimate of its value a year hence by $G'B'$, two years hence $G''B''$, etc. Of the second increment, the present value is AB . The present estimate of its value a year hence is represented by $A'B'$, two years hence by $A''B''$, etc. Of the third increment saved, the present value is represented by AB , the present estimate of its value a year hence by $F'B'$, two years hence by $F''B''$, etc. Were this the last increment saved, one year's interest for all increments would correspond to $A'F$, two years' interest to $A''F''$, etc. But the fourth increment has a present value corresponding to AB , and an estimated value one year hence corresponding to $C'B'$, two years hence corresponding to $C''B''$, etc. Since this is the last increment saved, one year's interest throughout the field would correspond to $A'C$, two years' interest to $A''C''$, etc. The loss in the subjective valuation of this last increment must be compensated for by an increase in objective goods or interest. It is a characteristic of the market that interest tends to become equal throughout the field. All capital will therefore be paid for at the same rate as the most expensive increment. This affords a true surplus or rent,* as will be noticed later.

If, however, it is intended to apply Böhm-Bawerk's theory to the difference with which we estimate present and future wants (as illustrated in Figures I. and II.), it is again found to be faulty. Men seldom abstain from the satisfaction of a want, in order to be able at some future time to supply the same or a corresponding want.

* This is a common abuse of the word "rent," but there seems to be no better term.

In the case of those wants which we leave unsatisfied for the express purpose of getting interest, the interest does not pay for the difference with which we estimate the present and future satisfaction of the particular want which is forestalled. Let us return to Figures I. and II. If increment No. 7 were saved, the sacrifice would not correspond to the difference between No. 7 of Figure I. and No. 7 of Figure II., but to the difference between No. 7 of Figure I. and No. 4 of Figure II. If in Figure III. we let the descending line $A C'''$ represent the rate at which we discount future wants, the rate of interest would correspond to those portions of the perpendicular lines which lie above some such descending line as $A F'''$ rather than to those portions which lie above $A C'''$.

As already stated, a considerable portion of the capital has involved no sacrifice in the act of saving. Were this supply sufficient to bring the marginal utility down to where it would just balance whatever risk the capitalist undergoes in lending or employing his capital, no true interest would be paid. A larger amount of saving would cut into more pressing wants, and involve a sacrifice. Men will not undergo this sacrifice unless they are paid for it. This gives rise to interest, which then becomes an element in the cost of production. As an element in the cost of production, interest would probably exist under a socialistic state. Whoever should abstain from consumption, in order that society might have the requisite capital to carry on the industrial process, would have to be compensated in some form or other. If society, as a whole, voluntarily set aside a certain portion for such purposes, society as a whole would bear the burden, and expect to be rewarded by an increased production. The only thing avoided would be the phenomenon of one individual paying interest to another. However, it is conceivable to the socialists that by the superior productiveness of the socialistic organization goods would become

so abundant that their saving would cost no sacrifice. It is likewise conceivable that such a state may yet be reached under the present system, though it remains an open question whether such a condition is to be desired. It might mean a number of different things, such as a lowering of the standard of living or a blocking of the wheels of industry from any number of different causes.

But abstinence is not the only sacrifice involved in the lending or the employment of capital. At present there is always more or less risk involved. Marginal productivity must be sufficient to compensate for both risk and marginal abstinence, for both are combined in the sacrifice of the capitalist class. For the present, therefore, we make no distinction between the interest paid and the surplus arising from the employment of the last increment of capital. Under static conditions they would be equal. Under present conditions so much the greater part of the capital upon which interest is paid is employed in production that the price is fixed by that portion. It controls the market just as the price of several commodities is fixed throughout this country by the price at Liverpool. The fact that interest is sometimes paid on consumption goods only indirectly affects the rate of interest. An increase in the amount borrowed for consumption, other things remaining the same, decreases the amount that can go into productive processes. This would raise the marginal productivity and the rate of interest, just as a sudden increase in the amount of pork or wheat consumed in this country decreases the amount that can go to Liverpool and raises the price there.

Perhaps a better idea of the place of abstinence in the theory of interest can be obtained if we use the diagram on page 56 as an illustration.

In Figure IV. let the amount of capital in the industrial community be measured along the horizontal line A C, and let the productivity of capital be measured along the

perpendicular line A E, and let the descending line E C represent the rate of decrease in the marginal productivity of capital. If the amount of capital were measured by A D, the marginal productivity and the rate of interest would be measured by A F. If the amount of capital were measured by A D', the marginal productivity would, other things remaining equal, be measured by the line A F'; and, when the amount of capital equalled A D'', marginal productivity would equal A F''. From this it follows inevitably that, if capital went on increasing to A C,

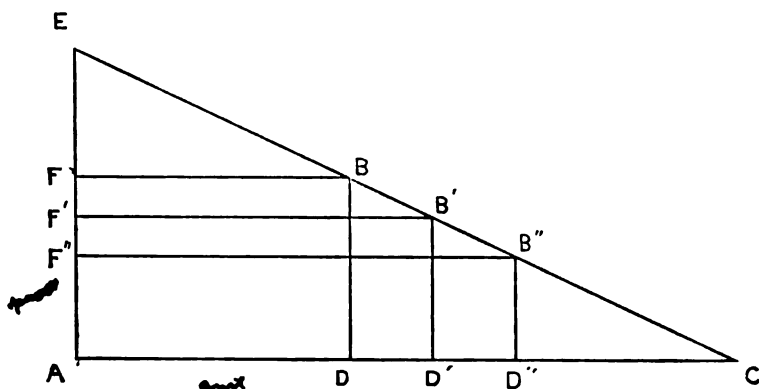


FIG. IV.

marginal productivity would be destroyed, and no interest would be paid. As above stated, were there no sacrifice connected with the accumulation of capital to offset the advantage accruing from the receipt of interest, capital would go on accumulating until the descending line E C approached indefinitely near to the line A C. But here the work of abstinence is seen in placing a limit upon the supply of capital before the point of no marginal returns is reached. Under static conditions saving will continue until abstinence plus the risk to the capitalist of saving the last increment is just balanced by the advantage de-

sented would be measured by A D, marginal productivity and marginal sacrifice by B D, total interest by A F, net interest by A J.

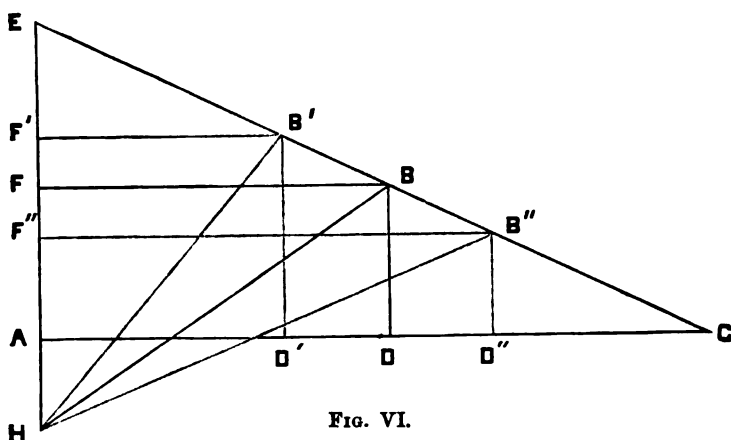
It may, with a certain amount of justice, be objected that payment for risk is a part of the expense of the employer of capital, and must be subtracted from the product of capital, thus cutting down the marginal productivity of the capital to correspond to the line M G instead of being added to the sacrifice of abstinence. It would then be not a part of interest at all. Either view would be consistent; but, so long as so large a part of that which is actually paid under the name of interest is payment for risk, it seems better to include it as a part of the sacrifice of the capitalist, since it makes no real difference to the nature of the problem.*

It can scarcely be denied that risk is a sacrifice to the capitalist. It is certainly one of the factors that influence the amount of saving. If men are doubtful of ever receiving a just return for their capital, they will have less inducement to forego the pleasure, however small, of present consumption. Men estimate present certain enjoyment considerably higher than future uncertain enjoyment. However, throughout the remainder of this paper, in order to simplify the illustrations, no distinction will be made between the sacrifice of abstinence and that of risk. Both will be treated under the general head of the total sacrifice of saving.

Any discussion as to whether marginal productivity or

*At present we are compelled to take account of risk. It is to be hoped that the progress of economic science will soon make it necessary to deal with the question of risk under the separate heading of insurance. Of the traditional four channels of distribution, wages would undoubtedly have first impressed itself upon the mind of an economist. Such simple tools as the primitive workman used would scarcely have been regarded as of sufficient importance to call for a distinct treatment. The theory of interest, therefore, would have developed later than that of wages. Rent and profits followed each in its turn. Insurance will probably soon take its place as a fifth channel of distribution.

marginal sacrifice were the most important to the production of interest must be a waste of time, since both are necessary, and neither could account for interest without the help of the other. With a given rate of decrease in the productivity of successive increments of capital, whatever raises or lowers the amount of sacrifice involved in saving will correspondingly raise or lower the rate of interest by decreasing or by increasing the supply of capital. For convenience let us suppose that the rate of decrease of marginal productivity remains fixed. Then suppose that a series of poor crops or other adverse circumstances, by diminishing the income of society, increases the sacrifice of abstinence, or that rumors of war or domestic violence increases risk. Either case would result in a decrease of the supply of capital, and raise the marginal productivity and the rate of interest.



In Figure VI. as in Figure V., let AD represent the amount of capital, AF the rate of interest, the descending line EB the rate of decrease in marginal productivity, and the ascending line HB the rate of increase in marginal sacrifice. Now let us suppose the angle of descent of the line

E B to remain stationary: whatever increases the sacrifice of the capitalist classes will raise the line H B to the position of the dotted line H B'. The amount of capital will then be measured by A D', and the marginal utility and rate of interest by A F'. Or suppose the rate of sacrifice to decrease to correspond to the dotted line H B". Then saving would go on to the point D'', and the rate of interest would be measured by the line A F''.

On the other hand, we may reverse the proposition by supposing the line H B to be stationary, while the line E B varies, and show that the same effect would follow the raising or lowering of E B. Thus we have the proposition: with a given rate of increase in the marginal sacrifice of saving and risking capital, whatever raises or lowers the productivity of capital correspondingly raises or lowers the rate of interest. The triangle H B F represents the rent or surplus gain of the capitalist.

It is impossible therefore to determine whether a high rate of interest is a favorable or an unfavorable sign until we know the reasons which make interest high. In a community where capital is safe and the payment of interest sure, where the people have a vivid appreciation of the future, where there are good natural resources, and population is not overcrowded, and where there has been no considerable destruction of capital by disasters, a rise in the rate of interest may pretty safely be counted as a favorable sign; for it probably indicates either that commercial and industrial conditions are favorable for the employment of more capital or that the people are acquiring a higher standard of life, so that abstinence costs them more than formerly. But, where any of the conditions are wanting, the conclusion does not follow.

From the standpoint of economic politics, it is probably best to lay more emphasis upon the cost or sacrifice element in the determination of the rate of interest. The factor of sacrifice is more easily corrected by social and

political measures. Education and enlightenment may increase the appreciation of the future, and encourage saving. Postal or other well-regulated savings-banks may do the same. Good legislation and a pure judiciary may decrease the risk of lending and employing capital; but it is not so easy to alter the productivity of capital.

If the foregoing argument is correct, it would seem that the productivity and the sacrifice theories of interest are to be harmonized in much the same manner as the cost and utility theories of value. This balancing of opposing forces which has been developed by Professors Jevons and Clark in relation to value seems capable of a much wider application than it has yet received. Its application to the theory of value is familiar to all. This paper is an attempt to apply it to the theory of interest, and it seems to the writer that the theory of wages might be made much clearer by an application of the same principle.

The question as to whether or not interest ought to be allowed by law resolves itself, as most other political questions, into the simple question of expediency. Without considering the question from the standpoint of abstract ethics, the argument from expedience is sufficient to justify interest. Were it possible to prohibit it, there would be at least two unfortunate results: First, much of the capital would be under inferior management. The reason A hires capital of B is because he can make better use of it than B can. He can make it produce more. If therefore B were forbidden to receive payment for the use of his capital, either society would lose through his inferior management or he would consume it. This brings us to the second unfortunate result. It would decrease the amount of saving. Capital to assist in carrying on industry would become scarcer, and society would suffer from a diminished supply of goods with a corresponding advance in cost.

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VALUE OF MONEY.*

MUCH has of late been said and written which seems to render desirable a restatement of the causes and conditions which determine the value of money,—the prices of goods. The remarks referred to are such as intimate or appear to imply that the extreme extension of credit, to embrace the banking system, the check system, and finally the clearing-house system, in some way vitiates the accepted proposition that the value of money is determined by the demand for and the supply of money, and makes general prices to depend on something else. The allusions to the small proportion of goods supposed to be paid for in actual money, to the cancellation of indebtedness within the bank, and to the vast transactions of the clearing house, as if these conditions rendered the supply of money a matter of indifference or at least of very slight consequence,—these allusions on the part of intelligent business men, and even of professional economists, are so frequent as to make it seem worth while to go over again the familiar ground of the value of money, to inquire whether anything needs to be added to or taken from the proposition which we once all practically agreed to accept.

There is nothing unreasonable in the idea that, in passing from a primitive community, industrially speaking, to one in which trade and production are highly organized, and in which credit and banking perform an important part, propositions regarding money which held good in the former condition should require to be importantly modified or wholly abandoned. In my work of 1878,† when

* This paper was read before the American Economic Association, at its session in Chicago, September 13, 1893.

† See *Money*, p. 22.

commenting on the remark of Professor Bonamy Price, that the vast operations of modern commerce only reproduce the simplest acts of primitive barter, I ventured to use the following image : —

The savage builds his canoe of materials every part of which would float of itself. The civilized man builds his broadside ship-of-war of material which of itself would drop like a plummet to the bottom. We may find, in our farther investigation, that there is something more in the philosophy of money than comes out in the primitive trade between the tailor, the butcher, and the baker.

But, in fact, does anything in the transition from a primitive to a highly organized trade impair the validity of the proposition that the value of money (whatever that money may, in the place and at the time, consist of) depends, like the value of anything else, on the relations of demand and supply; that prices are determined in the amount of goods offered for money, and the amount of money offered for goods? This is the question I presume to raise to-day.

It is enough to make the most faithful soul flinch and shrink, to be asked to go back to the contemplation of a primitive community and to consider the origin of money; yet in this case it seems to be necessary, and I will try not to be tedious. Let us suppose that in such a community, the members of which pursue various occupations and produce different kinds of commodities, the difficulties of direct exchange are so great as to put a heavy penalty upon barter, or, to express it otherwise, to place a high premium upon the use of money; and that, by consequence, all commodities are exchanged through the intervention of money. It was with reference to such a supposed situation that the proposition which has been more than once repeated in this paper was framed. In such a case, we should all agree that the value of money depended on the demand for and supply of money. In speaking of the demand for money, we should of course understand that

the effective occasions for its use in exchange were meant; and, consequently, we should have reference not merely to the amount of goods produced, but also to the frequency with which those goods were to be exchanged in their passage from producer to consumer. Again, in speaking of the supply of money, it would be understood, almost without the necessity of explanation, that reference was had, not alone to the number of money-pieces, but also, and conjointly with this, to the rapidity of their circulation. "The nimble sixpence does the work of the slow shilling." *"what - not. but that a mere begatle."*

Such is the situation in which no doubt arises regarding the causes and conditions which determine the value of money. Since the members of the community must have money in order to exchange their goods, and since, by the supposition, they must exchange their goods in order to make it worth while to produce them, they, each and all, must needs buy money. In order to buy it, they must pay its price, give what it is worth. What it shall be worth will depend, demand being fixed, upon the supply. The cost of production of money will influence its value only as it affects that supply. Conceivably, the money thus brought into use might be an article which held no appreciable cost of production, as, for example, an article found on the surface, but naturally limited in quantity; or it might be an article owing its use to authority or to convention.

Now let us take the first step from the condition assumed, in recognizing the fact that, in an actual community, all of the goods produced will not be subject to exchange, and therefore will not contribute to the demand for money. The fisherman will consume no small part of his catch in the support of his family; perhaps one-half of the crops of the farmer will be eaten within his own house and barn; the shoemaker, the tailor, and the hatter will each wear and wear out some part, at least, of his own

product. Does this modification of our assumed condition require any qualification of our proposition? Probably we shall all agree that it does not, that the product thus consumed at home is entirely out of all relation to the value of money, and that it is only the surplus going into exchange which has anything to do with determining that value.

Let us now take the second step from the condition originally assumed, and recognize the fact that no inconsiderable part of the surplus product is directly exchanged without the intervention of money. In the face of the highly humorous descriptions that have been given of the difficulties attending such transactions, we know that in every community, even the most advanced industrially, barter does take place, and that on no small scale. Let us suppose the amount of direct exchange within the community in contemplation to be large. Have the goods thus exchanged any relation to the value of money? In one way they have; but it is in the way of effect, and not of cause. The prices of the several kinds of goods produced in the community—that is, their value in terms of money—having come to be known through the exchanges which have taken place with the use of money, the barterers will be influenced thereby in fixing the ratios of direct exchange. But this is an incidental effect of the value of money, not in any sense or any degree a cause. Were the bartered goods to be multiplied fourfold (but not at the expense of the goods exchanged for money), this would have no effect upon prices, since it would alter neither the demand for nor the supply of money.

It is true that the line drawn in any community between bartered goods and those sold for money is not a permanent one. Possibly there has been some failure on the part of many meritorious economists to recognize the degree in which barter may be resorted to or may be abandoned, according as the money in use becomes more

or less convenient and attractive in form, more or less trustworthy as to substance and weight. In my work of 1878 I offered what seems to me a very important qualification of Ricardo's proposition regarding the value of corrupted coin. That qualification had reference to the large possibilities of extending barter whenever popular confidence in the coin becomes impaired. The commercial history of the United States during the Revolutionary War, of France during the time of the assignats, and I doubt not of other countries under a *régime* of inconvertible paper money largely depreciated, illustrates the importance of noting this condition. By the corruption of the coin, or merely by its becoming inconvenient and unattractive, much more by the fluctuations of an inflated paper circulation, the penalty upon direct exchange may be so diminished as largely to widen the field of barter. And in the same way everything that adds to the convenience, attractiveness, and trustworthiness of the money in use, may cause that field to be encroached upon. All this, however, has nothing to do with the validity of our proposition. It is still the goods which are exchanged for money, be these more or fewer, and not the goods which are bartered, be those fewer or more, which contribute to that demand for money which determines price.

✕ Our third step is involved in more of difficulty and of embarrassment. We are now to suppose that, of the goods which are, in the usual acceptation of the term, sold for money, a portion, let us say a considerable portion, are not paid for at the time. Credit is given either for a definite or an indefinite term. What is the effect of this upon the value of money? Do these goods contribute to the demand for money which determines price? The sales are made in terms of money; money is promised; money is, we will for the present say, sooner or later, to be paid.

Let us here introduce a distinction. Let it first be assumed that the credit is to remain individual, if I may

use that expression ; that the obligation is not to be transferred, but that the debtor and the creditor are to remain the same persons until the close of the transaction. In this case, I should say, with deference, that goods so sold contribute to the demand for money just as truly as goods sold for cash ; but I should add, not just as much. The factor by which the amount of such goods is multiplied, to give their effect in determining the demand for money, is lower. In the case, at least, of goods sold on definite terms of credit, there is a considerable, often a very large, economy in the use of money, as compared with the conditions of production and trade where "trust" is not given. It is not necessary to keep such large amounts of money in the shops or to carry them around on the person.

But now let it be supposed that credits are no longer individual, in the sense in which we have used that term, but that transference by indorsement has become general, and that banks have arisen which receive deposits of commercial paper representing a very large part of the whole-sale transactions of the community. What shall be the effect of this on the value of money ? According to my way of thinking, so far as this transference of obligations, especially in the case of the bank, which thereby becomes creditor to many debtors and debtor to many creditors, results in the cancellation of indebtedness, as to an enormous extent it does, these transactions are, so far as concerns the use and by consequence the value of money, the same essentially as if they had been acts of barter. Exchanges of this category do not involve the employment of money ; and they are therefore to be counted out when we are considering the causes and conditions which determine the value of money. They constitute no part of the demand for money. Two transactions upon credit which in time and amount balance each other, and which, as a matter of fact, cancel each other when brought together in the bank, are, for our present purpose, equivalent to one

transaction of the same amount in direct exchange or barter. The fact that each obligation has been expressed in terms of money, the fact that, in the buying and the selling which preceded the giving of the note of hand or bill of exchange, reference was had by both parties to prices determined by actual exchanges of goods for money, — these facts do not, it seems to me, at all impair the validity of the view that, so far as the use and the value of money are concerned, such transactions are, in essence, cases of barter.

But it may be said such transactions do, in fact, involve the use of money. The bankers' liabilities, which are made up of deposits of commercial paper coming due, and which constitute the fund upon which those who are debtors to others, but are creditors to the bank, may draw checks for the payment of their own obligations,— these banker's liabilities, or bank deposits, are, many persons assert, themselves money. I am well aware that this view has been held by those of whom it is needful to speak with very great respect. Such was the opinion of Lord Overstone; and Professor Sidgwick has more recently presented the same view. But I must say that it seems more compatible with the facts of commercial life, as well as far more conducive to a consistent and intelligent philosophy of money, to treat this matter of the cancellation of indebtedness in the way which has been suggested above. Bank-notes are money. They are distinct and tangible things, which pass out from the bank and have their own separate life and course; which become the property of him in whose hands they at the time are, as truly as do coins of gold or silver. Like such coins, they pass from hand to hand throughout the community, without reference to the character or the credit of the person offering them. Like such coins, they are accepted in final discharge of debts and full payment for commodities, without necessary recourse to the issuing bank, except as

they may individually become too much worn for further circulation, after performing, it may be a hundred, it may be a thousand, exchanges. Bank deposits, or bankers' liabilities, are not money. Inscribed on the books of the bank itself, divided into no definite parts, constituting no tangible thing, having no outside course to run, with no separate, identifiable existence, they are not money: they are simply an instrumentality for saving the use of money. As such, it would be impossible to overrate their importance; but that is no reason for attributing to them a character which they do not bear. Their real nature and function more clearly appears, it seems to me, when they are spoken of as an instrument for the cancellation of indebtedness than when they are characterized as money. To my mind, it is of importance to recognize, as among the signs of all true money, its circulation; its passing from hand to hand throughout the community; its leaving no trace or record behind it as it goes, indebtedness being discharged, or goods paid for, every time it changes hands.

169 Let us now pass to the final and last stage of our journey. It is only with reference to the point now approached that this paper has any significance, since thus far nothing new has been sought to be presented. Let us now suppose that credit has grown to enormous dimensions, and that, by consequence, the banking system, the check system, and the clearing-house system have been carried to what seem to be the limits of their possibilities. Vast volumes of indebtedness are daily cancelled in each bank, while but a small amount of coin and notes together is made use of in these transactions. At the clearing house the undischarged balances of a score or two of banks are every afternoon brought together and settled, with a use of coin and notes even smaller still. Now is there anything in such a situation which in any degree impairs the validity of the proposition that it is, after all, the demand for and the supply of the actual coin and notes

which determines prices? It seems to be an opinion that such a use of credit does constitute some other rule for determining the value of money, which prompts the frequent allusions to the fact that in such or such a bank the cash payments constitute but three per cent. of the total transactions or that in a given clearing house only a half of one per cent. of the bank balances are settled in money. Whenever a question arises regarding the sufficiency of the present or the probable future supply of metallic money, facts like these are thrust at us, not merely as showing the economy effected in the use of money by the organization of credit, but as if they showed that the supply of money had ceased to be of any consequence at all, and that something other than the money supply had come in to determine prices.

Now, it must be said that it is altogether consistent with economic principles that the relative importance of a subject of exchange should become so far diminished that it is released from the ordinary operation of the force of self-interest. Money itself affords an example in point, in the case of *billon*, the petty coin of small change, which seems to be governed by something analogous to the law of capillary attraction. Ordinarily, we say, water tends to seek its level; and we find a world of illustrations of that tendency, not merely in rivers, lakes, and oceans, but in the crust of the earth and in the very atmosphere. Yet, if a tube be only fine enough, water will stand in it, at any height, without any regard to gravitation. And this exception is not merely of curious interest: the whole vegetable creation subsists by virtue of it. So in the case of *billon*, with a proper regulation of amount, the market price and the mint price of the metal need have no defined relation to each other. There seems to be a sort of impression in the minds of the speakers and writers to whom in this paper I refer, to the effect that the volume of credit transactions in highly organized

communities become so enormous as to carry the money of the community with them by a species of capillary attraction. It is no longer, in this view, the actual money of a country which underlies and sustains the structure of credits: the credit structure becomes so vast and gigantic that the money of the country depends upon it and depends from it as a trivial, if not merely ornamental, appendage. Is there anything in such opinions which, however loosely held and vaguely expressed, have certainly exerted no little influence upon recent monetary discussion? Does the exaggeration of credit transactions, however monstrous they may become, in any degree release prices from the rule which has been indicated as governing them? Have such transactions any influence upon the value of money other than that which has been pointed out; namely, by accomplishing a certain cancellation of indebtedness, producing the virtual result of an extension of the field of barter and a corresponding retrenchment of the field for the use of money? Within the latter field, thus diminished, does anything less or anything other than the traditional principle govern the value of money, the price of goods?

In addressing myself to this question, I desire to say, first, that there is much of the vast volume of credit transactions, as shown by the statistics of the bank and the clearing house, which may, for all the purposes of the present discussion, be termed fictitious,—fictitious in the sense that a great part, perhaps the larger part, of these transactions are outside the necessary work of exchange in the community, fictitious in the sense that these transactions are very largely the direct product of the existence of the agencies, the bank and the clearing house, through which the resulting indebtedness is cancelled. Let me illustrate my meaning. It has been stated that the entire cotton crop of the United States is sold eight times over in the New York market alone. I know not

whether this statement is exactly true; but it is beyond question that that crop is sold over and over again, adding enormously to the banking and clearing house transactions of the city. By far the greater share of these purchases and sales constitute no necessary part of the process of getting the cotton from the planter to the manufacturer. Speculators take advantage of this credit organization, without which their operations would necessarily be restricted within very narrow limits, to carry on an enormous amount of gambling or betting on the future price of cotton. It is not essential for our present purpose to inquire whether this multiplication of purchases and sales under speculative impulse is or is not detrimental to production and to what we may call legitimate trade; that is, those exchanges, be they few or be they many, which are actually necessary to carry the product most easily and surely from the farmer to the manufacturer. I touch the subject here only to show how largely this speculative trading, itself mainly the result of the high organization of credit, contributes to inflate the statistics of the bank and the clearing house, and thus to produce the impression which has been adverted to, respecting the relative insignificance of the use of money in our day. What is true, in this respect, of cotton is also true of corn, wheat, pork, petroleum, mining and railroad stocks, and a hundred other subjects of exchange. In this view, am I not justified in saying that a very large part of the credit transactions, the amount of which is so freely adduced to show the comparative insignificance of cash transactions, are, with respect to that object, purely fictitious? Those who roll as sweet morsels under their tongues such gigantic figures as thirty or forty thousand millions a year, in speaking of the work of a single clearing house, are really deceived if they think that these sums represent either transactions that would have taken place, did not the clearing-house mill stand ready to take

the grist, or transactions the non-existence of which would impair production and legitimate trade.

Secondly, while the speakers and writers in question dwell with so much emphasis on the fact that, of the transactions of Sir John Lubbock's bank, only three per cent. were settled with cash, and that, in a certain clearing house, only a half of one per cent. of the business was adjusted in the same way, they inadvertently fail to call the attention of their hearers or readers to the fact that, in spite of barter and in spite of credit, a very large part, in most countries by far the largest part, in many countries almost the whole, of retail trade is still conducted with the use of money; and this is, after all, the vital thing. It would not in the least matter, for the purpose of deciding the question, what determines the value of money, if the cancellation of indebtedness in the wholesale trade were complete, if Sir John Lubbock found additional commercial paper to take the place of that unhappy last three per cent., and if every claim made by every bank, every afternoon, at the clearing house were offset by an equal and incontestable demand. The statistics of banking and clearing-house transactions would be irrelevant and impertinent to the issue, even were they not inflated, as has been indicated. In the field of wages and of retail trade, money gets that room to operate which enables it to determine prices, just as truly as if banks and clearing houses did not exist. In our own country the every-day agency of money is somewhat obscured by the enormous extension of the check system, by which small bills are often paid. But even in England, whose credit and banking organization is in all other respects far more perfect than our own, such a use of checks is almost unknown. Beyond England and the United States, no other country in the world to any extent employs this method of buying goods or paying bills for ordinary personal or domestic expenditures. But, even if the field of cash payments were far more en-

croached upon than it is, this would not impair the validity of our proposition. As I said in the earlier part of this paper, the use of credit simply means the diminution of the demand for money. It still remains true that the demand for money, whatever that may be, does, taken in connection with supply, determine prices. No civilized country has ever reached the condition, and we are not called upon to contemplate a time within which any civilized country will reach a condition, in which money must not be used to a vast extent. So long as people must have it, to pay wages and to buy goods, they must buy it, they must pay its price for it, they must give what it is worth. What it shall be worth will depend upon the demand for and the supply of it, as in case of any other thing that is bought and sold. The demand for money is found in the money work to be done, the amount of exchanging which needs to be effected by the use of money. The supply of money consists in the number of money-pieces available for the work of exchange, taken in connection with the facility with which they can be so used, the freedom or rapidity of circulation. Outside this field, it does not for this purpose matter in the least what the volume of credit may be, how high may be piled the transactions of banks and clearing houses. Were we considering the security of the latter, it would be important to compare their volume with the amount of money circulating within the field of cash payments; but this is not our business to-day.

When the present paper was placed upon the programme of the Association, I little thought that in defending my thesis I should enjoy the advantage of such a tremendous, such an overwhelming demonstration of the importance of the actual money of a country, in the face of the most elaborate organization of credit, as the United States has afforded during the past two months. Sir John Lubbock's bank and the half per cent. cash payments in the

clearing house cut a very small and sorry figure, indeed, in comparison with the spectacle which has been afforded of a great nation on the verge of general insolvency, thousands of factories and workshops closed, hundreds of thousands of workmen thrown out of employment, all because a certain amount of cash, of actual money, had been locked up in strong boxes and bank vaults. When one considers what this great industrial nation has passed through within the last sixty days because a portion only of its money had been withdrawn, he is fairly in a position to appreciate the senselessness of all this talk about the unimportance of the money supply which I took for my theme on this occasion. Until we have forgotten how we saw the banks of the commercial and financial metropolis refuse to pay their balances to other cities in cash on demand; how we saw great and rich firms paying their workmen in checks of \$2, \$3, and \$5, and these checks not payable at the bank, but stamped "payable only at the clearing house"; until we have forgotten how we saw great factories carrying on their business timidly from day to day, not with money and not with proper commercial credit, but upon the frail foundation of sympathy and forbearance from their creditors and even from their operatives, while thousands of other manufacturers refused to carry on business at all under such conditions, and closed their works,—until we forget these universal experiences of the past few weeks, we shall, I think, be disposed to give Sir John Lubbock's bank a rest. No more striking demonstration could possibly have been given of the fact that, after all credit can do, money, actual money, money that passes from hand to hand, is still the vital blood of commerce, than has been afforded by the crisis through which the United States has just passed. For weeks the nation walked along the very verge of a precipice, under a strain which could not possibly have continued for as many weeks longer without hurling industry and trade to

the bottom of the abyss. All this time the trouble was not want of capital, for the nation had never been so rich; not the lack of credit in commercial relations, for the history of the world may be searched in vain to find an equally remarkable example of the readiness of merchants and bankers to trust each other and to support each other, even at the risk of their own fortunes. The trouble was all in the sudden withdrawal of a portion of the nation's money supply, due to distrust of financial legislation. This was all, and this was enough to bring the United States nearer to general ruin than it has been before since the war made us a nation indeed.

F. A. WALKER.

THE PRUSSIAN BUSINESS TAX.

THE taxation of business profits is a source of public revenue to which most states have in one form or another resorted, although not always directly or by means of a distinct tax. Of course, business may be taxed under some more general form of taxation, such as a general income or property tax. But many European countries have adopted a business tax, which is distinct in form and administration from the other taxes which with it make up the tax system of the country.

In Prussia the business tax, or *Gewerbesteuer*, has existed in addition to an income and class tax, a land tax, and a tax on buildings. The income tax is general, imposed alike on all forms of income. The other taxes are, in effect, an additional impost on income derived wholly or in part from land and capital. It is assumed that this form of income may with justice be required to contribute more to the public expenditures than the earnings of labor alone, such as wages, salaries, and professional fees.

In 1890-91, before the recent reform of the tax system, the yield of these several taxes was as follows:—

	Marks.	Per cent. of Total Tax.
Land Tax (<i>Grundsteuer</i>)	40,032,000	24.6
House Tax (<i>Gebäudesteuer</i>)	32,375,000	19.9
Business Tax (<i>Gewerbesteuer</i>)	21,119,000	13.0
Class Tax (<i>Klassensteuer</i>)	24,681,000	15.2
Income Tax (<i>Einkommensteuer</i>)	44,364,000	27.3
Total	162,571,000	100%

The effect of recent legislation has been to make the income tax the principal state tax, and set apart the other taxes in the above list—with the exception of the class tax, which has been absorbed in the income tax—for purposes of local taxation. At the same time a state property tax has been introduced, to which the name *Ergänzungssteuer* (supplementary

tax) is given, because it is intended to supplement the income tax, and carry out the idea of imposing an additional burden on "funded" incomes; that is, incomes derived from land and capital.

These latest changes embodied in the legislation of this year form the second step in the scheme of reform, which will doubtless always be associated with the name of the present minister of Prussian finance, Dr. Miquel. The scheme certainly does credit to his statesmanship and political sagacity. A fuller description of these latest tax reforms may, the writer hopes, be given in some future paper. The income tax in its most recent developments has already been discussed in this *Journal* for January, 1892. On the present occasion it is proposed to give some account of the business tax.

While it is manifest that the business tax has not occupied a prominent place in the Prussian budget, yielding but 13 per cent. of the total revenue derived from direct taxes, yet in its form and administration there are certain unique and interesting features which make it worthy of especial study. Like the income tax, it underwent important changes in the tax reforms of 1891; and although in future it is, as we have said, to be a local tax, in the sense at least that the revenue derived from it goes not to the state, but to *Gemeinde* or some other local organization, yet it is still to be administered by the state; and the provisions of the law of 1891 which regulated the state business tax are still to be enforced, with only such changes as the new purpose to which the tax is to be devoted renders necessary. These changes are few; for the law of 1891 was passed with the expectation that the *Gewerbesteuer* would soon become a local tax, and seems to have been framed with that probable result in view.

The great difficulty in the way of the assessment of a business tax is the ascertainment of the value of the business or the amount of the annual earnings which form the proper basis of taxation. Of course, the owner of the business, even if he cannot state with absolute certainty the amount of his

net profits, is in a position to give as complete and satisfactory information on this point as the case admits; and he might be required to make a declaration of his profits, similar to the declaration which is often required in the assessment of a general income tax. We believe, however, that this method has not been resorted to in any case where the taxation of business profits has been carried out by means of a distinct tax, and not included under some more general form of taxation. The usual objections made to assessment on the basis of declarations — namely, that it is inquisitorial, and equivalent to a tax on conscience — apply with additional force when it is a business tax which is under consideration; for in business affairs a certain degree of secrecy is often essential to success.

These considerations, perhaps, have made legislators more reluctant to require declarations here than elsewhere. But, if that method is not to be employed, the only alternative seems to be either to rely on official estimates, made on the basis of the best information accessible to the tax assessors, or to regulate the tax by means of certain outward signs or criteria of the size of the business, after some method which is explicitly described in the tax law, and leaves little or no scope for the independent judgment of the assessors. The best illustration of this method is found in the French *patent* tax, where, in order to carry out the plan and adapt it to the great diversity in the condition and nature of the industries taxed, an extremely elaborate enumeration of occupations and scheme of indicia has been adopted. The signs or criteria taken into consideration are as follows: —

1. The nature of the industry or occupation, the different industries being divided into four main classes, A, B, C, and D, with a further subdivision within these classes.

2. The rental value of the buildings used in the business and, usually, of the owner's dwelling, if it is distinct from his place of business.

3. The population of the place in which the business is carried on, this index being regarded, however, only in classes A and B.

4. For certain kinds of industry the number of workmen

employed, or the amount of machinery made use of, or some similar index of the extent of the business.*

The *patent* tax was introduced in France almost a century ago, and has undergone a good deal of revision since then, until at the present time it represents, probably, as near an approach to perfection as the method of taxing by outward indications is capable of. But, at best, it is an unsatisfactory way of getting at the tax-paying capacity of a business, although it possesses the advantage of avoiding any searching inquiry into the financial condition of the tax-payer, and of preventing arbitrary action on the part of the tax officials. The latter have only to follow implicitly the rules laid down in the law. The same system has been adopted with more or less modification in many other European countries.

The Prussian business tax, although up to the time of the latest reform it resembled the French in some features, has always placed more reliance on the discretionary judgment of the assessors. Thus in Prussia the law has never attempted to regulate definitely and finally the tax for each individual business. A distinguishing feature of the system has been the assessment by means of a medium or average rate for all business concerns of a given kind located within a given district. This average rate, multiplied by the number of persons or concerns assessed, will of course give the total tax to be collected from that trade or business in that district. The equitable distribution of this total among the individual tax-payers is intrusted to local assessors, acting under certain restrictions which will be noted later.

This method of assessing the tax was introduced in the law of 1820; and that law, which was one of several important tax measures enacted at the same date, was not repealed until 1891. The several amendatory laws which had been passed in the mean time (July 19, 1861, March 20, 1872, and June 5,

* It would take too much space to describe the way in which the tax is determined by reference to these criteria. See Leroy-Beaulieu, *Sciences des Finances*, i. 393-414; Wagner, *Finanzwissenschaft*, 468. The law, as revised in 1880, may be found in *Bulletin des Lois*. See also Say, *Dictionnaire des Finances*, art. *Patentes*.

1874) did not affect the general character of the tax; and the method of assessing by means of average rates is still perpetuated in the law of 1891. But in most other respects the new law differs from the old, and especially as regards the classification of the industries taxed.

The law of 1820 based this classification in part on the nature of the industry. There were eleven classes, in most of which the method of assessing an average rate was introduced; and this rate was graded with reference to the size of the city or place in which the business or industry was located. With this end in view, all cities and smaller places were divided into four groups: the first group, for which the average tax was the highest, comprised nine principal cities given by name; most other cities with a population of 6,000 or more were included in the list which made up the second group; and, of the remaining smaller places, those with a population of 1,500 or more belonged in the third group, and all others in the fourth.

To illustrate the method, take the tax on the keeping of inns and public houses, which was one of the eleven classes referred to above. Here the average annual rate for the first group, the large cities, was 12 thalers, for the second 8, for the third 6, and for the fourth 4. One hundred innkeepers in a city of the first group, for instance, would have to pay, on the average, a tax of 12 thalers each, or a total tax of 1,200 thalers. The law further prescribed a minimum tax, which, in most cases, was one-half the average, so that, in the above case, for instance, every innkeeper in a city of the first group must pay at least 6 thalers. There was no fixed maximum limit, nor was any needed, for the adoption of a minimum rate in connection with an average rate tends at the same time to prevent the assessment of disproportionately high rates; for, in order to make up the average tax, the assessment of higher rates in some cases must be offset by lower ones in others, and a fixed limit in one direction would therefore act as a restriction on taxation in the other. A further guarantee for the satisfactory distribution of the total tax among the individual taxpayers was given in that provision of the law which required

those engaged in the taxable industry to elect from their own numbers the local assessors.

Such were the main features of the Prussian business tax previous to 1891. The law of that year introduced important changes.* The old classification of industries has been abandoned, and the population of the place in which the business is located is now no longer taken into account in regulating the tax.

The basis of the new classification is for all kinds of business alike, either the annual earnings or the capital. There are four classes (cf. *Gesetz von Juni 24, 1891, § 6*): the first includes business or industrial undertakings which either yield annual earnings amounting to not less than 50,000 marks or employ a capital (fixed and circulating) of not less than 1,000,000 marks; in the second class may be rated those businesses with annual earnings from 20,000 to 50,000 marks, or with a capital from 150,000 to 1,000,000 marks; in the third, those with earnings from 4,000 to 20,000 marks, or with capital from 30,000 to 150,000 marks; and in the fourth, those with earnings from 1,500 to 4,000 marks, or with capital from 3,000 to 30,000 marks. Any business in which neither the earnings amount to 1,500 marks nor the capital to 3,000 marks is exempt from the tax (*Gesetz, § 7*). It was estimated that this limit would exempt about 300,000 small business undertakings, or more than one-third of the total number of businesses (865,940) assessed under the old law (cf. *Einleitung des Gesetzes*).

This double basis of classification may at first seem somewhat confusing, or even inconsistent with the plain rule of logic that a division must be founded on one principle or basis. But a further study of the law shows how the two bases are to be employed so as to avoid difficulty. Each business is classified on the basis of either its earnings or its capital. When it belongs in one class on the first basis and in another on the

* The law bears the date of June 24. The German text is given in the *Finanzarchiv* for 1891 (vol. II.), and has also been published in many other forms, with additional material in the way of comments and explanations. One of the cheaper editions is *Das neue Gewerbesteuer-Gesetz. Ergänzt und erläutert durch die amtlichen Materialien der Gesetzgebung*. Von R. Hüginghaus. 1891. Berlin: Ferd. Dümmler's Verlagsbuchhandlung. Price 60 pfennigs.

second, the tax officials have, with certain exceptions which we shall mention presently, practically the option of rating it in either class. Of course, having regard to fiscal considerations only, it would be natural to rate the business in the higher class, where it would yield considerably more to the public revenues than in the lower. Accordingly, the intention is that in general earnings shall be employed as the principal basis of classification; but it is deemed practically advantageous to use capital as a secondary or alternative basis, because there are cases in which it is especially difficult to estimate the earnings,—as when a business is newly established or where it is carried on principally in foreign countries, although having its location or some one factory in Prussia. Furthermore, it is urged that this use of two bases meets with favor in business circles, where occasions for dissatisfaction would often arise if a business were transferred to a lower class or perhaps exempted from the tax altogether, simply because, owing to some special combination of circumstances (*Konjunktur*) or to some single error of management, its earnings had temporarily fallen below the limit of the class in which it had hitherto been rated (*Einleitung des Gesetzes*).

But, whichever basis of classification may be employed, the tax for each class, as we shall see, is graded with reference to the estimated earnings. It is apparently meant to be a tax on profits rather than capital. Therefore, if a business is correctly classified on the earnings basis, the fact that it may belong in a lower class on the basis of capital does not show that the tax on it is disproportionately high. That fact simply means that the business derives, relatively, large earnings from small capital, or, in other words, is unusually profitable, and may be taxed accordingly.* The law allows no appeal from the classification in such cases as this.

The case is otherwise when the business is correctly classified on the basis of capital, but on the basis of earnings be-

*It may be noted in passing that the regulating of the tax with reference chiefly to the earnings is somewhat inconsistent with the idea of making it rest on "funded" incomes. Large profits in proportion to capital usually imply superior business management or some other form of labor on the part of the owner.

longs in a lower class. Here the tax may prove to be higher in proportion to the earnings than was intended; and the law has taken such cases into consideration by providing that any business, even when correctly classified on the basis of capital, must be transferred to the next lower class on proof that for two years in succession the earnings have not amounted to 30,000 marks in Class I., 15,000 marks in Class II., or 3,000 in Class III. (*Gesetz*, § 8). These amounts, then, represent the minimum limit of permanent earnings for these three classes respectively. Whatever the capital may be, the business cannot be retained in the class in question unless the earnings come up to this limit. The limit, it will be observed, is considerably below that which is adopted for the classification on the earnings basis. On that basis no business can be classified in Class I., for instance, unless its earnings amount to 50,000 marks. If, however, its capital amounts to 1,000,000 marks, it may be classified on the basis of capital, and retained in Class I. so long as its earnings amount to 30,000 marks. It does not follow, however, that, because under these conditions the business is retained in Class I., it must pay as high a tax as it would if its earnings were sufficient to rate it in that class, or that it must pay a higher tax than it would if, on the basis of earnings, it were transferred to Class II. This will be apparent when we come to consider the scale of rates.

There are no provisions corresponding to the above in case of Class IV., the lowest class. Therefore, no business with a capital of 3,000 marks is exempt from the tax, however small its earnings may be; but under the scale of rates in that class the tax may readily be adjusted to cases in which the earnings are unusually low in proportion to the capital.

In determining what constitutes earnings or capital, the tax officials have to rely mainly on their own personal knowledge and judgment. But a few general principles are laid down in the law. The costs of the business are to be deducted from the gross receipts, and a proper allowance made for depreciation or loss in value (*Werthverminderung*),* and for the loss

* This, it seems, includes loss occasioned by wear and tear (*Abnutzung*) of the buildings and equipments and any depreciation in the value of wares or of the outstanding claims of the business, etc.

incurred by discarding machinery or other equipments of the business. But the interest on capital, whether borrowed or not, and on debts cannot be deducted. Neither can expenditures for the improvement or extension of the business, nor for the living expenses of the owner and those dependent on him. Fixed and circulating capital is briefly defined as comprising all the value permanently devoted to the prosecution of the business (*Gesetz*, §§ 22, 23).

The method of assessing the tax by means of a medium or average rate has, as we have said, been retained in the new law: it does not, however, apply to Class I. There its adoption was considered impracticable, owing to the wide differences in the earnings and capital of businesses rated in this class. Therefore, each business is assessed separately and independently. The tax is graded so as to collect approximately 1 per cent. of the earnings. Thus, when the earnings are from 50,000 marks to 54,800 marks, the tax is 524 marks; and it increases 48 marks for every increase of 4,800 marks in the earnings. In this class, then, the tax is simply a graded tax on earnings assessed directly on each business. The assessment districts are the provinces and the city of Berlin; and, of the assessors for each district, two-thirds are chosen by the committee of the province (*Provinzialausschuss*), and one-third are nominated by the Minister of Finance (*Gesetz*, §§ 9, 10).

For the other three classes average rates are prescribed: for Class II., 300 marks; for Class III., 80 marks; and for Class IV., 16 marks. This rate is the average tax to be collected from the tax-payers in any given assessment district. The assessment district for Class II. is the *Regierungsbezirk*; for Classes III. and IV., the *Kreis*. The tax-payers rated in the same class and district constitute a tax association (*Steuer-gesellschaft*), on which the total tax for that class in that district is assessed (*Gesetz*, § 13). This total is, of course, the product obtained by multiplying the number of business undertakings represented in the association by the average rate for the class in which it belongs. If, for instance, in a given district there are 100 businesses rated in Class III., the total tax in that association will

be ($80 \times 100 =$) 8,000 marks. The distribution of this total among the individual tax-payers is intrusted to a tax committee, the *Steuerausschuss*, the members of which are elected by the association from its own numbers. But the chairman is a commissioner of the government appointed to represent the interests of the state (§§ 15, 25). In the election of the committee the suffrage is limited to one vote for each business taxed. The size of the business is, therefore, not taken into consideration; and, where there are several proprietors, only one of them can vote. In this way it is hoped to secure assessors who possess the confidence of the tax-payers, have a practical acquaintance with the local business conditions, and will distribute the tax equitably and satisfactorily. This feature of the law is not new. It was adopted when the business tax was introduced in 1820, and in its workings is said to have given general satisfaction.

In assessing any individual business, the committee is limited to a choice among the optional rates prescribed in the law for each class. In Class III., for instance, there are 18 such rates, ranging from a minimum of 32 marks to a maximum of 192 marks (*Gesetz*, § 14). Moreover, the rate selected in any case may not exceed 1 per cent. of the earnings of the business taxed. This rule, however, does not apply to a business rated on the basis of capital when on the basis of earnings it belongs in a lower class (*Gesetz*, § 15, 2). Acting under these limitations, the committee is to distribute the tax according to their knowledge or estimation of the amount of the earnings.

In this intention to collect about 1 per cent. of the earnings, and in most cases not more, is found the explanation of the scale of rates which is given below. The maximum rate in each class is nearly 1 per cent. of the maximum earnings in the earnings scale of classification; and the minimum rate, although considerably less than 1 per cent. of the minimum earnings in that scale, is but little more than 1 per cent. of the minimum earnings which a business might yield, and still be retained in the class in question on the basis of its capital.*

* In Class IV. there is, as we have remarked, no such minimum limit for the earnings. But the low minimum rate, 4 marks, makes it possible to keep the tax below 1 per cent. until the earnings fall below 400 marks.

The consequence is that the rates for the different classes overlap; that is, the minimum rate for each class is less than the maximum rate for the next lower class. This allows a considerate treatment of businesses which are rated in a given class on the basis of capital, but which, as regards earnings, belong in the next lower class. The arrangement is an ingenious one, and has some results which are worth noting.

		Rates.	
EARNINGS from 1,500 to 4,000 marks, or CAPITAL from 3,000 to 30,000 marks,	} -IV. . . .	4	
		8	
		12	
		16=average tax for IV.	4
		20	
		24	
		28	
		32	
		36	6
		40	
EARNINGS from 4,000 to 20,000 marks, or CAPITAL from 30,000 to 150,000 marks, and earnings not less than 3,000 marks,	} -III. . . .	48	
		56	
		64	
		72	
		80=average tax for III.	8
		88	
		96	
		108	
		120	
		132	
EARNINGS from 20,000 to 50,000 marks, or CAPITAL from 150,000 to 1,000,000 marks, and earnings not less than 15,000 marks,	} -II. . . .	144	
		156	
		168	
		180	12
		192	
		228	
		264	
		300=average tax for II.	36
		336	
		372	
EARNINGS not less than 50,000 marks, or CAPITAL not less than 1,000,000 marks, and earnings not less than 30,000 marks,	} -I. . . .	408	
		444	
		480	
		524 on 50,000-54,800 earnings.	
		572 on 54,800-59,600 "	
		620 on 59,600-64,400 "	
		etc. etc.	

In the first place, it is obvious that the transfer of any given business from one class to the next lower need not necessarily reduce the tax it has to pay; and conversely, of course, its transfer to a higher class need not raise the tax. For instance, a business with a capital of 150,000 marks, and earnings amounting to 18,000 marks, might either be rated in Class II. on the basis of capital or in Class III. on the basis of earnings, without making any difference in the tax the owner is called upon to pay. For in either class he may be assessed 156, 168, 180, or 192 marks. In that case, it might well be a matter of indifference to him in which class he was rated; but in the yield of the tax to the public treasury it would make a very important difference. For, if the business is retained in Class II., it yields the average rate for that class,—namely, 300 marks,—which has to be raised by the association in which the business is taxed. If, however, it is transferred to Class III., it will only yield 80 marks, the average rate for that class. It is obviously for the interests of the treasury to have this business retained in Class II. Its transfer to Class III. means a loss of 220 marks; and yet the owner of the business may, as we have seen, have no special inducement to protest against his retention in Class II. That is not the case, however, with the association to which he belongs; for it pays over to the public treasury 300 marks on his account, while it receives from him only 180 marks. It would therefore gain 120 marks if this tax-payer were transferred to Class III.; and in that class he will be welcomed, for he adds but 80 marks to the total tax of the association, to which he contributes 180 marks.

The arrangement has this advantage, as it seems to me: It allows the tax-payer who is on the border line between two classes to pursue his own business affairs without giving himself much concern as to which class he is rated in. He can leave that question to be decided by the representatives of the associations interested and the government officials. In making the classification, the friction must come principally at this point. The fiscal interests of the State demand that the business should be classified in the higher class, those of the two associations that it should be classified in the lower. It is not

the State *versus* the individual tax-payer, but the State *versus* a group of tax-payers, or their representatives, no one of whom has any special reason to be more interested in the decision than another. It is the classification which determines definitely the amount which the state is to receive from the tax and the amount which each association—not each individual tax-payer—is to contribute. After the classification is settled, therefore, any further conflict of interests is between the members of the same association, each of whom will of course find it for his advantage to see that he does not pay more than his share of the total tax of the association, or, what is the same thing, to see that other members do not pay less than theirs.

It follows that, so far as the returns from the tax are concerned, it is only necessary to ascertain the earnings or capital of a business within rather wide limits,—namely, the limits which determine the classification,—and the tax-payer may be called upon to state where within these limits his business belongs (*Gesetz*, § 55); but any more definite statements as to his earnings or capital cannot be required of him. He may, however, be required to state in what business or businesses he is engaged, where they are located, the number and kind of workmen employed, the nature and quantity of machinery in use, including the motive power of the works, or to answer any other questions in regard to the outward indications of the extent of his business (*Gesetz*, § 54). The chairman of the tax committee, moreover, has the right to inspect any place of business or manufacture during working hours (§ 25). But the books of the business cannot be examined without the owner's consent (§ 27), and the assessors are bound by oath to keep secret all information obtained in the exercise of their office (§ 49).

It must not, however, be forgotten that in the assessment of the income tax the written declaration is required. These declarations can hardly fail to be of great assistance in the assessment of the business tax. In many cases, the personal income of the tax-payer will be identical with the earnings derived from the business in which he is engaged; and the Introduction to the business tax law calls attention to the

urgent desirability of selecting for chairman of the tax committee the chairman of the income tax assessment commission for the same district, "on account of the substantial identity of the materials used in ascertaining industrial income and business earnings."

It being the intention of the law to collect about 1-per cent. of the earnings, we might perhaps, at first thought, expect that the average rate selected for each class would be about 1 per cent. of the arithmetical mean between the minimum and maximum earnings; but, as a matter of fact, we find it to be considerably less than that, and the difference is greater in Class III. than in Class II., and greater again in Class IV. than in Class III. These lower rates were selected with the expectation that in any class the businesses with smaller earnings will outnumber those with larger, and that the actual average earnings will therefore be considerably less than this arithmetical mean between the minimum and maximum limits. It is assumed, furthermore, that this numerical preponderance of small businesses over large will be greater according as the class is lower. It is presumably expected, then, that the average earnings will not be far from 80,000 marks in Class II., 8,000 marks in Class III., and 1,600 marks in Class IV. Indeed, the successful application of this method of assessment and scale of rates depends in some measure on the approximate correctness of these estimates. In case, however, the average rate proves to be more than 1 per cent. of the average earnings in any association, a reduction of the assessment may legally be demanded (*Gesetz*, § 15, 3); but no provision is made in the law for cases where it proves to be considerably less than that. We might at first think that in such cases there would be no occasion for complaint on the part of the tax-payers. Yet a little consideration shows that the fact that the average rate is considerably below 1 per cent. of the average earnings might prevent the equitable distribution of the total tax of the association by compelling businesses with small earnings to contribute more than their share. We may take again for illustration a tax association in Class III. composed of 100 members. The total assessment will then be $(100 \times 80 =)$


8,000 marks. As long as the number of members in the association remains the same, there will be no change in the total tax, whatever changes there may be in the total earnings. If the expectation of the law is fulfilled, the total earnings will not be far from 800,000 marks, so as to make the tax about 1 per cent. Suppose, however, that the proportion of businesses with large earnings is greater than usual, so that the total earnings amount to 1,600,000 marks. Then the tax (8,000 marks) is one-half of 1 per cent. But the lowest rate which can be assessed in Class III. is 32 marks, which is equivalent to a rate higher than one-half of 1 per cent. wherever the earnings are less than 6,400 marks. Yet in this class they may be as low as 4,000 marks, or, if the business is rated on the basis of capital, 3,000 marks. On 4,000 marks a tax of 32 marks is more than three-fourths of 1 per cent., and on 3,000 marks more than 1 per cent. If these small businesses are taxed above the average rate per cent., it follows that some or all the larger ones must be taxed below it. We have here a case of regressive taxation. The small earnings are assessed at a higher rate per cent. than the large.

It may be very improbable that the rate per cent. of the total tax would ever prove to be as low as in the case we have supposed. Yet the scale of rates is such that in Classes II. and III. the tax on the minimum earnings which a business may have, if classified on the basis of earnings, cannot be less than three-fourths of 1 per cent., or, if classified on the basis of capital, less than 1 per cent. In other words, the minimum earnings must, in the first case, be taxed above the average rate per cent., as soon as that average falls below three-fourths of 1 per cent., and, in the second case, as soon as it falls below 1 per cent. That it should never in any case fall below 1 per cent. is certainly too much to expect. It may be that the resulting cases of injustice will not be very serious; but, in a study of this ingenious method of assessing the tax, such probable results as these are, it seems to me, worth noting. Some remedy for such cases might easily be found; and, indeed, under the law as it now stands, if the average earnings in any association prove to be unusually high, the classification

could be revised with a view to transferring, if possible, some of the businesses with earnings near the maximum limit to the next higher class. The use of two bases gives, as we have seen, a degree of flexibility to the classification which may often, as in such cases as this, prove convenient.

In conclusion, we can but remark that the enactment of such a law as this furnishes a striking evidence of the high degree of efficiency attained in the Prussian administrative service.

JOSEPH A. HILL.



NOTES AND MEMORANDA.

"PHILOSOPHY AND POLITICAL ECONOMY."

That Adam Smith was a moral philosopher as well as political economist has often enough been cited as proof that the two fields are but portions of a common domain. Some are indeed so bold as to affirm that the dividing fence is a useless obstruction, and might be removed with no loss either to political economy or philosophy. A writer of Mr. Bonar's rank was in no danger of making such a mistake. We are shown in the new volume under the above title* how constant and intimate are the relations between the two. We are shown, with the skill of large and generous learning, how this problem of philosophy and economics lay in the thought of some score of master minds. Though Plato gave to the State a purely economic origin, Mr. Bonar says: "Historically, it is true that the economical element is in the Greek philosophy subordinated to the political, and still more to the ethical. Such economical doctrine as is traceable in the writings of the Greek philosophers grows out of their moral and political philosophy."

In mediæval and modern times political economy grows out of political philosophy. It is not that economics did not exist to these earlier thinkers, but it was so mingled with philosophic and political discussion as to lose all distinctness. "Accordingly, the philosophers of the earlier periods devoted more space in their philosophical books to economic discussions than the philosophers of the later, who were free to hand over all such discussion to the economists. Plato's treatment of economical subjects is for this reason much more ample than Hegel's."

* *Philosophy and Political Economy in some of their Historical Relations.*
New York: Macmillan & Co. 8vo. pp. 426.

This result of differentiation is, according to Mr. Bonar, limited chiefly to the more direct dealing with economic issues. It is admitted *indirectly* that at least economists concern themselves rather more than less with philosophic ideas.

This appears not only in regard to the theory of the foundation of property, family, society, and State, but in regard to the psychology of the feelings, desires, and volitions connected with the pursuit of subsistence and wealth. The time when Political Economy became a distinct study in the hands of the Physiocrats and the Scottish Philosophers was also the time when the motives of an ordinary human life were investigated with the greatest curiosity. (p. 374.)

So far as ethics may be considered a part of philosophy, this truth appears more clearly still. If we except the more severely theoretic investigation, ethical writers are turning more and more to economics. One has but to glance at recent works, like those of Professors Ziegler, Höffding, and Paulsen, to see how large a series of questions is introduced that are distinctively economic. A distinguished philosophic teacher, Professor Riehl, of Freiburg, says, "I have meant to write a volume of ethics before now, but the changes introduced by economic questions compel me first to study my problem some years as if it were a new one." Loria's new volume, *Les Bases Economiques de la Constitution Sociale*, is at every point as much a book on morals as on economics. English economists illustrate the tendency no less strongly than those of any other nationality. It is common to say that economic science is spoiled if it be once mixed with ethical elements. Of the strict theory, as distinguished from practical application, this of course is true; but this distinction of functions is far from adequate. No one more successfully than Professor Sidgwick "keeps his moralizing where it belongs"; yet his economics as well as his political philosophy are profoundly modified by the point of view which he invariably takes,—the philosophical. Here, indeed, the greatest change in regard to the relation between economics and philosophy may be seen. However sharply functions are differentiated, writers seem more and more forced to look at the whole problem from a philosophical, ethical, and psychological standpoint.

This may be seen in the school which lays its supreme stress upon *consumption*. It may be seen in the growing emphasis that psychology is receiving. The closer becomes our familiarity with "social schemes," the more we find their ultimate differences in some sort of psychology. Owen, and, to a large extent, the socialists generally, have a view of human nature which is believed to justify their confidence that changed circumstance will produce a new humanity. Plans of social regeneration will be found in no way so radically to differ as in regard to this ultimate fact of human nature,—What sort of creature have we at last to deal with? *Are* the deeper qualities of character modifiable to any such extent? Whatever our views as to this point, we are brought straight to the great questions of evolution, heredity, and the like.

The very fact that we are getting our subject more specialized, that we are getting deeper into it, that we are getting a larger and more various order of facts classified, makes this philosophical standpoint necessary. As long as mere "production" was thought in some way to be central and final, as long as it was believed that the free and unhindered play of competitive forces would of themselves work out a society that should in any way satisfy our ideals, it was natural that the distinctly economic element should have chief place. In proportion, however, as distribution and consumption gain prominence, in proportion as man and his growth are seen to be the real end sought rather than wealth-creation, in that same degree the need of a philosophy of the situation is felt. Nothing now more marks the best economic thought than the tendency to set before itself some sort of ideal of human relationships in society. Such an ideal demands both a unifying and an interpretation of facts. Such unity and interpretation are impossible without a philosophy. The impulse to moralize in economics has doubtless played havoc with much political economy, yet the instinct to make ethical ends in some way a part of the problem was sound and right.

Now that it is possible to distinguish more clearly between the theoretic function and the application of principles, able writers are even more bold to determine the general problem

from points that are, first of all, philosophical. Overwhelming evidence of this can be seen in the new literature. So far as any change may be believed to have taken place, it is in the economist's readiness to subordinate strictly economic interests to interests that are held to be higher and more necessary.

Professor Smart, writing recently upon the "Place of Industry in the Social Organism,"* says, "Is it not becoming evident that philosophy and economics must now join hands to find out and declare what is the true end and right relation of economic activity among the other activities of human life?" The "philosophical economist" or "economic philosopher" is to attempt this task. Probably the greatest change now taking place is the growing and conscious purpose deliberately to reorganize the industrial organism for certain ends that are extra-economic. It is every day more widely admitted that such ends will never be won by the "freedom of industry" alone, as this term has been understood. Mr. Bonar says in his treatment of Darwinism (page 361) "it becomes a theory of development very akin to the philosophical, for it really involves the conservation of the past; and, instead of the preservation of *mere life*, the object of the struggle is the attainment, deliberately conceived, of a *better life*."

It is the reaching of this better life for all to which the mere wealth concept is becoming relatively of less importance in the minds of economists. Especially in Europe it is appearing in legislation as distinctly as among the thinkers,—this determination by *artifice*, in its proper sense, to control industrial forces, so that the beginnings at least of a completer life shall be possible to the mass of the workers. Every special question is more and more discussed in the light of this purpose. The eight-hour issue, for example, is felt to be seriously dealt with, only if quite other questions are asked than those concerning the mass of the product alone. Economic specialists more and more admit that, even if quantity of product lessens, there may be a final gain to the worker that will amply compensate the loss. Here the severely economic element becomes secondary to another order of values that might be expressed in

* *International Journal of Ethics*, July, 1893.

terms of "social welfare," "more general opportunity of progress," or some kindred notion. There is hardly a phase of the "social question" of which the same is not true. In the growing struggle between the ideals of co-operation and profit-sharing the ultimate reasons for preference translate themselves into something more than could be contained in an economic equation. Mr. Bonar's splendid study makes us feel this in every chapter. In the sure scholarship of the historical portion we see that since Grotius the idea that mere force in industry is necessarily right or best becomes ever more discredited among the ablest thinkers, and in its place rises the idea that the only conditions we may tolerate—the only "natural right"—is in such ordered circumstances as shall make possible *for all* a rational human life. Here men of most various schools approach each other,—Krause, T. H. Greene, and Herbert Spencer.

The only criticism one feels in reading this volume springs from the limits which the author sets himself. Why, in such a work, is Comte scarcely more than a foot-note? It is hardly enough that he spoke ill of economics. His relation to sociology and the sheer force and extent of his influence upon that order of ideas with which Mr. Bonar deals would seem to warrant further space for one who, more than any other, has deepened our sense of "order and progress," and hence of the organic and dynamic facts of society. Mr. Bonar says of Kant (to whom a whole chapter is given) and Herder, "This service of theirs, which seems remote from economics, was, in reality, to be of great importance to that study." Of Comte could less be said?

JOHN GRAHAM BROOKS.

AGRICULTURAL SYNDICATES IN FRANCE.*

It may be a fact of some interest for Americans that the *Syndicats Agricoles*, which are rightly attracting the attention of agricultural authorities in various parts of the world, and promise entirely to revolutionize French rural economy, owe their origin, in the first instance, to an American idea. Count Rocquigny, in the interesting account which he has published of the agricultural associations with which his name has become creditably associated, candidly admits that it was the "Farmers' Alliances" of the United States which first suggested the present form of French agricultural combination to its authors. As it happens, the offspring bids fair to prove of wider and more enduring benefit than the parent. Its past record has been one of truly astounding successes. It has spread as if by magic. In the brief space of barely a decade, it has covered all France with a network of organizations ministering to the needs of agriculture in a surprising variety of ways, and flourishing almost everywhere. There is not a department now without its *Syndicats*,—linked together in departmental, or, beyond that, in regional "groups," or not, as the spirit of union or of local independence happens to have prompted members,—generally doing good work. In M. Gatellier's words, the syndicates have "democratized" the use of feeding stuffs, artificial manures, and improved agricultural implements, increasing the consumption of manures alone from a poor 52,000,000 francs to 120,000,000, which promises a great increase in the near future, while reducing the current prices by from 20 to 30 per cent., and substituting a genuine article for one very much adulterated. They are diffusing agricultural education, improving cultivation, and—greatest benefit of all—they are teaching the value of independent thought and independent action to the French peasant, whose one distinctive fault heretofore has

*Comte de Rocquigny, *Les Syndicats Agricoles, et le Socialisme Agraire*. Préface de H. Le Trésor de la Rocque, Président de l'Union des Syndicats des Agriculteurs de France. Paris: Perrin et Cie. 1893.

been the want of "private initiative," and schooling him to rely upon himself and the assistance which by exchange he can secure from his neighbors, rather than on the questionable benefit of State help.

Count Rocquigny's book explains all the various methods employed, and presents, indeed, a highly attractive picture of syndicate work accomplished, in which it would not be possible to point out any one line which runs counter to truth. But, to the eye of one who has seen the syndicates actually at work, the picture appears a little wanting in clearness, owing to something of a false perspective, arising from a failure to indicate the precise proportion between the measure of success actually attained on different portions of the ground covered. This is easily explained by the fact that the count is writing far more with a view to incite his own countrymen to syndicatist action than merely to enlighten foreigners as to what has been accomplished. But to foreigners the caution is necessary.

The *Syndicats* began with a most ambitious programme. The Socialists had made inconvenient headway in some specifically agricultural departments of Central France. Laborers' unions had been formed, strikes were being organized, piece-work was being protested against. To meet such organizations on their own ground and prevent the formation of more, Professor Tanviray and his friends opposed to the "class" syndicates, consisting of workingmen only, their new "mixed" syndicates, composed both of small folk and of large land-owners. And they declared fierce war against "Socialism," which war, even from their own point of view, appears to have been carried a trifle too far. Indeed, one whole "part" of Count Rocquigny's book is taken up with arguments against Socialism. The *Syndicats* wanted to build up as well as pull down. By their professors teaching technical knowledge, by their laboratories and their monthly publications,—the prized *Bulletin*, which in most districts has had a decided success,—by the prize competitions organized, the prizes offered for better cultivation, for the construction of liquid manure tanks, for the use of perfected implements,

by the advice freely given on the use of artificial manures, and by similar action, the syndicates have become one of the most serviceable agents of technical education in France. Beyond that they proposed effectively to defend agricultural interests on the political battlefield. And, in one instance, at the general election of 1889, the *Syndicat Economique Agricole* of Paris really was fortunate enough to score a success of this kind, by inducing a majority of the candidates for the new Chamber to accept openly the agricultural programme,—rejection of the proposed commercial treaty with Switzerland, lowering of the railway tariff, and a reduction of the land tax, all which measures have been carried. They also aimed at organizing co-operative sales of agricultural produce, combination for productive purposes, in the shape of co-operative dairies, vintries, and the like.

All this really is on paper the most interesting portion of the work done. One seems to feel, from Count Rocquigny's account, as if the great problem, the favorite problem with agriculturists of all nations, had at length been solved, and farmers had been taught to become their own salesmen, altogether independent of intermediaries. We read of horses and cider sold by syndicates in Normandy, of a syndicate taking an army contract for straw, and of similar transactions. But, in truth, all this amounts to very little. The practical successes which at all deserve speaking of are on this ground still to come. On the other hand, the syndicates have really been surprisingly successful in their organization of supply co-operation, and, beyond that, in their organization of co-operation for common work, much of which Anglo-Saxon and German farmers accomplish in combination, without resort to a formally constituted union. In France the spirit of combination was before 1883 altogether undeveloped, but the *Syndicats* must not take all the credit for this success exclusively to themselves. They have come upon the scene in the very nick of time, and, by the help of very able officers and a good administration, have managed to turn favorable circumstances to excellent account. In truth, however, all France, which previously looked upon co-operation only as a useful handmaid to

production, promising to bring emancipation and independence to workingmen, has lately become alive to the value of co-operation of other kinds, more particularly credit and supply. While agricultural syndicates have been organizing, agricultural co-operative supply stores, after the pattern of the London Army and Navy Stores, have been springing up and multiplying in towns; and in the south of France co-operative people's banks have become a recognized source of popular credit. Co-operative associations are now multiplying apace; and the official account of the growth of co-operation in its various aspects, which is in slow course of preparation in the Rue de Grenelle, promises to prove a most interesting publication. But, unquestionably, the *Syndicats* have managed to guide and swell this general current beyond anything which could have been anticipated.

The *Syndicat* movement, in fact, represents one of the most beneficently effective social or economic movements which France has seen for many a year. And its possibilities, as M. Breloy puts it, altogether defy measuring. This is the more surprising, since the act of 1884, which forms the constitutional charter of *Syndicats*, deliberately places hindrances in the way of these institutions, and makes it difficult for them to transact business. Hence those rather cumbrous methods of sale and purchase, which there is no space here to describe, and which Count Rocquigny admits to be roundabout and troublesome. Hence, also, the curious classification of members, which seems so wholly opposed to the democratic idea, and which one can scarcely expect to see maintained long in republican France, though up to the present no serious inconveniences appear to have risen. There are *membres fondateurs*, rich men paying heavy subscriptions, and pledging themselves for a fixed term of perhaps five years, and *membres effectifs*, poor cultivators, who pay a small subscription, and are free to come and go. It is the latter mainly who are intended to derive any benefit; and, in the very few credit syndicates thus far formed, it is they alone who do so. The rich men are patrons. Possibly that mode of organization was inevitable, but it is obviously open to objection. It does not represent the purest form of self-help.

However this may be, it is impossible not to admire the great good which these institutions have done to French agriculture when one sees it. And one cannot help thinking that from co-operation practised in so striking a variety of forms — co-operation not only in every description of supply and of insurance, but also in such work as draining and embanking, fumigation to repel the frost from vineyards, exterminating noxious insects, buying implements for common use, from large steam threshing-machines down to the smallest tools, co-operation for blending vines from different departments, for arbitration, for settling the proper customs as between incoming and outgoing tenants, and many things more — agriculturists in other countries ought to be able to learn something, even though for the ordinary purchase of goods they do not require a new form of association.

HENRY W. WOLFF.

AN interesting contribution to the monetary history of the United States since 1878 was made in a valuable paper read by Mr. M. L. Muhleman at the meeting of the International Institute of Statistics in Chicago. Mr. Muhleman, who has had experience as an officer in the Treasury for many years, stated that the demand on the Treasury for notes of the smaller denominations had for years been steadily large and difficult to meet. The indications at the central point of issue have, apparently, been that the supply of this sort of currency has been insufficient rather than redundant for the convenience of retail transactions; the situation being thus different from that in regard to the subsidiary coins, of which the Treasury has held much more than the community had occasion to use. Mr. Muhleman expressed his opinion that, even before the extraordinary demand of the midsummer panic of 1893 set in, the normal demand for the notes of the four smaller denominations (one, two, five, and ten dollars) had not been satisfied,

and that fifty millions or more could be added to the stock of these denominations without causing embarrassment. This is testimony of weight on an interesting and important phase of the currency situation.

The total volume of paper issues of all sorts, in denominations of twenty dollars and less,—including gold and silver certificates, United States notes, and Treasury notes and bank-notes,—was: in 1878, 563,000,000; in 1886, 707,000,000; in 1893, 966,000,000. This is a growth more rapid than that of the population, and indicates a great increase in the volume of exchanges and purchases in which material welfare reaches its final and concrete expression. It shows once more the direction in which the United States was able to absorb the silver issues of the act of 1878. It shows, too, the nature of the probable limits to the power of absorbing the heavier issues of the act of 1890.

THE parliamentary papers on the suspension of the free coinage of silver in India have been published, and have been reprinted at Washington by order of Congress. They comprise: (1) the report of the Indian Currency Committee, known from the name of its chairman as the Herschell Committee; (2) the correspondence between the Indian government and the home government; (3) the testimony before the Indian Currency Committee. From the correspondence it appears that the Indian government suggested as early as March, 1892, the adoption of some measures towards checking the decline in the gold value of the rupee. In June, 1892, it specifically recommended the closing of the mint to the free coinage of silver, and arrangements for the introduction of the gold standard, in case the international conference then impending should fail to reach a satisfactory result. The Indian Currency Committee was appointed in October, 1892, to consider this recommendation. In January, 1893, the Indian government submitted a draft bill for suspending the free coinage of

silver; and on May 31 the committee made its elaborate report. The report was at once sent to India; and, after a telegraphic exchange of opinions, the home authorities on June 20 authorized the Indian government to proceed. The act for suspending the free coinage of the rupees was accordingly passed a few days later.

The communications of the Indian government, and the report of the Currency Committee, alike lay stress on the probability of the cessation of silver purchases in the United States, and of a consequent further fall in the price of silver; and they urge that any measures taken to protect the Indian finances should come before this further cause of embarrassment had come into operation. The grounds and probable results of the final step are discussed by competent hands in the September number of the British *Economic Journal*.

THE Report of the Senate Committee of Finance on Wholesale Prices, Wages, and Transportation, was finally issued in the course of the summer. Though published as a Senate report, it is virtually a publication of the Department of Labor, the work of collecting and arranging the enormous mass of material having been intrusted to that department, and carried on under the direction of Commissioner Carroll D. Wright. The investigation was conducted on a scale such as would have been impossible without a very heavy expenditure of funds, which, in this case, at least, was directed to the publication of material of high value. The report fills four large volumes, and is a monument of thorough and skilful statistical work. No such careful and complete investigation of the course of prices has ever before been made.

The investigation was first undertaken, it will be remembered, from a praiseworthy desire to secure authentic facts and unbiassed conclusions on the workings of the tariff. But, as might have been expected, this particular object could not be separately pursued; and the present collection of materials,

while it may be helpful to the student of tariff legislation, is helpful simply as all material on industrial history may serve his turn. The main problems on which light is thrown are the monetary ones. Here we have continuous quotations of the prices of 223 articles from 1860 to 1891, while for 90 of these articles the quotations are from 1840 to 1891. There are 543 series of wages returns from 1860 to 1891, and 61 series which begin as early as 1840, each series referring to a considerable number of workmen. There are elaborate and continuous data on rail and water transportation rates. The prices are quoted four times for each year, at the beginning of the quarters, and are prices from actual sales, ascertained chiefly from the books of merchants. Wages are given for January and July of each year, and are similarly ascertained from actual pay-rolls.

Not only is there this imposing mass of invaluable material, but there is a complete analysis of the main results. The task of digesting the statistics was put into the capable hands of Professor R. P. Falkner, to whom economists are indebted for a presentation of the results so skilful and complete as to dispense in large measure with the need of referring to the material itself. Professor Falkner has computed index numbers, based on the January prices of each year, indicating the course of prices for different groups of articles,—food, clothing, metals, and so on,—and has computed also general index numbers for the whole list of articles. In reaching the index numbers, both the simple arithmetical mean and the mean weighted according to the importance of the articles were used. The returns of wages were similarly digested, index numbers for different occupations and for the whole set of returns being worked out. Finally, at the close, the results of the various European investigations of prices are summarized for ready comparison with those of the Report. The materials, the results, and the methods of the whole investigation will command at once the earnest attention of economists, and will not fail to be the occasion for active and instructive discussion.

THE financial troubles of the last few months have once more brought into relief the peculiar position of gold in the currency of the United States. During the months of July and August, when the scarcity of "money" for every-day use was greatest, the banks paid out from their reserves, especially in New York, considerable sums in gold coin. These coins, however, could not make their way into active circulation, partly because they were not in the denominations desired for the ordinary exchanges and purchases, partly because the purses and pockets of the people were not adapted for their safe and easy carriage. The demand was for paper money of the smaller denominations, and the "premium" which existed during July and August was mainly for currency of this sort.

The crisis reached its severest stage, as indicated by the operations of the New York banks, in the second half of August. The course which it ran is indicated by the following figures, which give the condition of the banks at selected dates:—

[MILLIONS OF DOLLARS.]

	Loans.	Deposits.	RESERVE.	
			Specie.	Legal Tenders.
February 4 (maximum deposits),	464.9	495.5	83.4	59.3
May 27 (before the stringency),	415.9	436.7	70.7	64.0
June 17 (clearing-house certificates issued)	410.7	406.5	68.2	42.2
August 12 (lowest reserve),	411.8	372.2	53.6	22.9
September 16 (recovery),	392.9	377.3	73.5	31.5

Between the close of May and the middle of June the banks lost twenty-two millions of legal tenders, and so were led to the issue of clearing-house certificates. A further loss of twenty millions took place during the next two months, leaving the reserve at its lowest point in the middle of August. The holdings of specie (which is almost all gold) showed a much less marked decline, from seventy millions in May to fifty-three millions in August.

One consequence of the critical conditions of this period was an abrupt change in the character of the money taken in and paid out by the government treasury in New York. The following figures, which give the percentage of the various sorts of money received at the custom-house in New York for import duties, indicate the nature of this curious turn:—

	Gold Coin.	Gold Certificates.	Silver Coin and Certificates.	U.S. Notes.	Treasury Notes.
January, . .	0.0%	8.9%	15.8%	42.1%	33.2%
February, .	0.0	9.2	20.7	33.3	26.8
March, . .	0.0	7.8	15.7	28.0	48.5
April, . . .	0.1	2.9	23.3	41.0	32.7
May, . . .	0.1	0.0	37.8	26.2	35.9
June, . . .	0.0	0.0	12.0	53.0	35.0
July, . . .	12.5	4.6	12.3	55.6	15.0
August, . .	47.4	4.3	5.1	37.6	5.3
September, .	58.1	1.7	17.7	16.3	6.2

It will be seen that in the early months of the year gold and gold certificates had practically disappeared from the customs receipts, United States notes and Treasury notes forming the bulk of them. The causes of this state of things are sufficiently well known,—the decline in the Treasury gold reserve at the beginning of the year, the uneasiness as to the maintenance of gold payments, and the redundancy of paper. In July, August, and September the situation suddenly changed. Gold coin was paid in for customs in large amounts, while silver certificates and Treasury notes of the issue of 1890 almost disappeared. Evidently, gold coin was turned into the Treasury to meet public dues, while paper of the sort available for every-day use was retained to meet the extraordinary demands of the panic period.

DURING the summer of 1892 I was fortunate enough to have a conversation with a very thoughtful English artisan, whose account of his own "trade" revealed a degree of immobility among skilled laborers which I was hardly prepared to find.

My informant had been a "hat-shaper" in London for thirty-six years, working for the largest hat-manufacturer in England. Yet during the whole of that period he scarcely knows of any instance in which a shaper, however slack employment may have become, went into another occupation. In fact, he recalls absolutely no case except that of one man, who for twelve months found work as an odd-job man at a neighboring leather factory.

Sixteen years ago a machine was introduced which, though it did not altogether dispense with the labor of shapers, has reduced the wages of three out of four of them to one-half of what they were before. Yet my informant knows no case of a man leaving the occupation in consequence. This applies to many score of men, the *élite* of the "trade" in point alike of skill and intelligence. It applies equally to men unmarried and married, old, middle-aged, and young. It is interesting to notice, moreover, that, though my informant was himself the son of a small master baker and his own children had not been brought up to his own industry, he was of opinion that most of the shapers of whom he spoke were the children of hatters.

W. J. A.

RECENT PUBLICATIONS UPON ECONOMICS.

[Chiefly published or announced since July, 1892.]

I. GENERAL WORKS, THEORY AND ITS HISTORY.

- COMMONS (J. R.). The Distribution of Wealth. New York: Macmillan & Co. [Announced.]
- ELY (R. T.). Outlines of Economics. New York: Hunt & Eaton. 12mo. pp. 442. \$1.25.
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- OSBORNE (G. P.). Principles of Economics: The Satisfaction of Human Wants, in so far as this Satisfaction depends on National Resources. Cincinnati: R. Clarke & Co. 12mo. \$2.
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II. SOCIAL QUESTIONS, LABOR AND CAPITAL.

- BALCH (E. G.). Public Assistance of the Poor in France. [Public. of Amer. Econ. Assoc.] Baltimore: Amer. Econ. Assoc. 8vo. pp. 179. \$1.
- BERTOUCH (E.). Vorschläge zur Lösung der Arbeiterfrage. Wiesbaden: Dietrich. 8vo. pp. 362. 3 m.
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THE
QUARTERLY JOURNAL
OF
ECONOMICS

JANUARY, 1894

ANALYSIS OF THE PHENOMENA OF THE
PANIC IN THE UNITED STATES
IN 1893.

THE year immediately preceding the financial crisis of 1893 did not present symptoms or indications of approaching panic which generalizations from the history of preceding business crises in the United States had declared should be observable at such a time.

A summary in a recent publication * of what have been regarded as essential, underlying conditions of approaching panic enumerates wonderful prosperity (as indicated by numerous enterprises and schemes), a rise in the prices of commodities, of land, and of houses, an active demand for workmen, lower rates of interest, a general taste for speculation ("in order to grow rich at once"), growing luxury leading to excessive expenditures, "and a very large amount of discounts and loans and bank-notes, and very small reserve in specie and legal tender notes, and poor and decreasing deposits."

* *A Brief History of Panics and their Periodical Occurrence in the United States.* By Clément Juglar. G. P. Putnam's Sons, New York. 1893.

Panics in business communities may be divided into two classes, (1) commercial and (2) financial. The author rejected the notion that there was any basis for presuming a purely commercial panic imminent, for which he had abundant data; and by his own rule, based on preceding financial disturbances, felt himself obliged to predict as follows:—

The fact that an analysis of the bank returns to the Comptroller of the Currency shows that available resources (capital, deposits, surplus, and undivided profits), as compared with demands (loans and discounts), are good and growing, considered in regard to the other signs* indicating prosperity, . . . justifies the prediction of the steady development of a prosperous period.

The foregoing was written apparently six or eight months before the crash in industrial securities in May, 1893, with which the panic made its formal appearance in the United States. Evidently, then, the results of elaborate investigation into banking statistics from 1811 to 1892, covering eight panic periods, showing sharp checks in the growth of deposits coincident with continued free expansions of loans just prior to financial crises, must be regarded as not entirely trustworthy indications.

Yet, be it observed, taking the years 1871 to 1874 inclusive, banking returns fell quite within the rule. Aggregate loans increased 10 per cent. between March 18, 1871, and February 27, 1872, while deposits increased only 5 per cent. In the following year loans increased 8 per cent., but deposits only 7 per cent; and in the (panic) year 1873-74 loans gained 2 per cent., while deposits decreased 9 per cent. Again, in the years 1882 to 1885, inclusive, a like exhibit is made. Loans increased in volume 5.7 per cent. within the twelvemonth ending March 13, 1883, and deposits fell off 3 per cent. The next year loans gained 5.7 per cent. to March 7, 1884, two

* Those indicating improbability of impending commercial panic.

months prior to the outbreak in Wall Street, during which period deposits gained only 3 per cent. In the following year loans went off 6.7 per cent. and deposits 5 per cent. But, if one contrasts the annual movement of bank loans and deposits during five years, ending with the autumn of 1892, similar "indications of approaching financial panic" will not be discovered.

	<i>Per Cent. of Increase.</i>	
	<i>Loans.</i>	<i>Deposits.</i>
Year ending February 26, 1880,	7.6	8.2
Year ending February 28, 1890,	8.2	9.0
Year ending February 26, 1891,	4.5	.†
February 26, 1891, to March 1, 1892,	6.0	15.0
March 1, 1892, to September 30, 1892,	6.0	4.0

While loans were expanding regularly, the like was true of deposits, with one exception, which was not enough to warrant belief in impending business disaster, when viewed in contrast with the more rapid rate at which deposits increased when compared with loans and discounts between March, 1891, and October, 1892.

This compels the rejection of preceding generalizations of indications of approaching financial panic as insufficient, and points to the necessity for an extended examination into the features of the business convulsion through which we have recently passed, having in view an accumulation of data and characteristics of phenomena of this class, which may assist in making a broader and more comprehensive generalization.

I.

The years 1885 and 1886, following the comparatively restricted financial disturbance of 1884, comprised a period of enforced economy and recuperation. Fraudulent banking methods had resulted in heavy failures, and precipitated a crash in May, 1884, carrying down institutions which might otherwise have remained solvent. These

disasters dragged after them a large number of commercial concerns, and, owing to the existence of over-extended credits complicated with the pernicious practice of dating bills ahead, brought about a panic in commercial circles which required two years to overcome.

Beginning in 1887, there followed three years of moderate revival. Railroad building increased, and the volume of trade gradually expanded. During this period British investors became interested to large amounts in South African gold mining enterprises and in large undertakings for the construction and development of public works in the Argentine Republic and in Australia. In France speculation in tin, copper, and sugar, assumed such vast proportions as to affect and therefore attract the attention of the public in all parts of the civilized world, thus tending to emphasize at home and abroad the injudiciously extended investment of capital in this the preceding period of trade expansion. Never since the resumption of specie (gold) payments in the United States in 1879 had the so-called free silver party been idle; and in 1890 the outcome of the controversy between the single gold standard party and the "friends of silver" resulted in the compromise measure in Congress known as the Sherman Law, by which the government was required to purchase \$4,500,000 of silver each month. The high pressure of industrial production, abroad as well as at home, was, moreover, stimulated in 1890 by the passage of the McKinley tariff act, the former owing to an endeavor to turn out and export to the United States a maximum quantity of products prior to the going into operation of the higher tariff, and the latter in anticipation of a wider home market, due to increased import duties. The calendar year 1890 presented, therefore, a flood-tide record as to the volume of general trade in the United States.

One of the first evidences of approaching reaction was felt in England in 1890, on the realization of the practical

bankruptcy of Portugal, though this was overlooked in the onward sweep of the then more conspicuous evidences of prosperity. But the collapse of booms in South African gold mining properties arrested attention, as the results were severe losses to many thousand investors of moderate means, thus taking away from financial London an important prop to investments. The collapse of the boom in Argentine securities, owing to national, State, and municipal governments in that country finding themselves unable to carry their obligations, proved a staggering blow to the English financial world, practically dragging down the great house of Barings. This reflected itself in Wall Street, where the economic function of organized speculation is to discount and register future values of investment securities. While the puncture of the so-called Australian boom naturally intensified the shock to British and indirectly to American capital, it was by no means so disastrous, because the greater portion of investments there suffered relatively smaller actual loss than those in the Argentine Republic and South Africa, being converted into longer time, but less depreciated obligations. Leading railway securities traded in at the New York Stock Exchange declined sharply, the months of November and December in 1890 presenting marked panic symptoms in Wall Street.* Lowest quotations were reached in most instances prior to the close of the year, as lowest quotations in 1891, showing a very general though moderate enhancement in values. The action of the Bank of England in going to the rescue of the Barings prevented what almost unquestionably would have proved a more disastrous panic, not alone in England. Concerted action by strong financial institutions here and abroad in taking care of outstanding obligations in the business world, followed here by the two largest wheat crops on record,—coincident with Russian and French deficiencies

* For comparative quotations, see the table on p. 253.

in wheat harvests,—coupled with the momentum remaining from the unprecedentedly prosperous commercial year 1890, aided in the process of reorganization and rehabilitation which marked 1891 and 1892. The latter year was characterized by restrictions of mercantile credits and by wide-spread efforts at settling old accounts. There were many attempts at extensions of trade, but they were not the rule. The “silver question” had not been allowed to sleep during the two years of enforced industrial and commercial intrenchment, and by the close of 1892 was prominent in legislative and other discussions involving the public welfare. The practical withdrawal of London investors from Wall Street and as investors in or subscribers to American enterprises had, even then, long been attracting attention; yet so promptly had remedial measures been put into operation during the financial disturbance of 1890, and so steadily had shorter credits and the process of paying old debts and contracting fewer new ones been enforced for nearly two years, that, while “panic” had been frequently prophesied as the outcome of indefinite continuation of the policy of compulsory monthly purchases of silver, few, if any, expected an early approach of such a result. No one predicted such in the near future, and some of the best informed refused to recognize the panic when it had actually arrived.*

The effects of the withdrawals of British speculative investment funds had been viewed with apprehension ever since the Baring embarrassment. Many efforts have

*The president of the Chemical National Bank, New York, May 5, said to a representative of *Bradstreet's*, *apropos* of the crash which had taken place in Wall Street: “It is rather an ungracious act to say, ‘We told you so’; but the fact nevertheless remains that the present financial emergency has been directly caused by the distrust engendered by the unsatisfactory silver situation. Of course, unreasonable and unwarranted inflation of some industrial securities has contributed to render the present condition apparently more critical. Liquidation has assumed, therefore, an aspect almost startling in some directions. All things considered, however, the recent immense shrinkage has done good; and the situation at present leads me to believe that the storm is passing over and that clearer skies are in sight.”

been made to approximate the total sum withheld from investment in the United States through disapproval or fear of the effect of our compromise silver policy, but without satisfactory results.* Such withdrawals and withholdings of foreign capital have been variously estimated at not less than \$500,000,000 between the passage of the Sherman silver law in 1890 and the beginning of the heavy export movement of gold in 1893. As expressed in a New York financial newspaper,† London continued to look with indifference on our securities, as "attested by the utter lack of buying of stocks for foreign account, which has shown itself since the Baring disaster abroad and the adoption of the Sherman silver act here."

The year 1893 opened with many expressions of confidence in a prosperous future of general trade, but with some freely expressed doubts. The writer recalls an illustration in a call received by him in March, 1893, from the heads of a New York branch of a large British manufacturing concern. They wanted to learn the facts, so far as possible, bearing on the probability of an improvement in the condition of general trade in the United States, or the reverse, during the summer and autumn of 1893. What was told them did not include a prediction of panic,—then only six weeks distant,—but reasons were presented for believing the volume of trade would not expand, that the industrial output would decrease, that hours of labor would be curtailed and wages reduced, that credits would be restricted, and that interior merchants would buy for near-by wants only. Evidently, judging from inquiries of this nature, there was, among

* In an address before the American Bankers' Association in Chicago, October, 1893, Mr. Joseph C. Hendrix, president of the National Union Bank of New York, said, "The Bland act, followed by the Sherman act, with a free-coinage party never idle in Congress, drove away the foreign capital that Australia has since squandered."

† *Bradstreet's*, July 22, 1893.

bankers, note brokers, large manufactures and dealers, a manifest uneasiness as to what the new year would bring forth. In March, too, the stock market showed extreme nervousness. Gold was going abroad freely, and banks were finding it important to be more conservative in making discounts as well as collateral or stock market loans. Meanwhile the cloud which hung over the trade situation darkened. Great Britain was feeling the pinch, not only of Australian, Argentine, and South African financial embarrassments, but of decreased purchases from those countries, as well as from Chili, Uruguay, and Peru. Our imports of merchandise had been exceeding our exports in value; and the probable gold requirements of Austria, France, and England, served to intensify anxiety on the part of those who kept themselves abreast of the situation.

With the approach of April the necessity for a considerable accumulation of ready funds to meet the customary interest and dividend disbursements and commercial settlements showed itself in panicky symptoms in the New York stock market, though no serious difficulties presented themselves. The gold clause in contracts made at New York was being insisted on in the second week of April, marking growing apprehension of lenders lest continued accumulation of silver in the treasury should result in depreciating the standard of value.

The success in tiding over April 1 and its period of disbursement, followed by shipments of currency to New York from the West, availed little in checking the spirit of unrest, representatives of foreign lenders declining at one time during the third week of the month to make loans at all in the New York market. A temporary feeling of relief was caused late in April by the formal announcement from the Treasury Department that no discrimination would be made between legal tender and treasury silver notes, and it was accompanied by a temporary ces-

sation of gold exports. But this was offset by the prospect that the government would be compelled to sell bonds to buy gold to maintain the \$100,000,000 treasury gold reserve, with which to guarantee the payment of the greenback treasury notes, and by domestic trade conditions calling for the shipment of funds from New York to the West. The sensitiveness of the public to the likelihood of cutting into the \$100,000,000 treasury gold reserve was illustrated by the Boston banks furnishing \$5,000,000 to the National Treasury in the last week of April, at which wide-spread commendation was expressed.

The crash of prices of industrial securities in Wall Street in the opening week of May was severe, far exceeding in its direct and indirect effects the panic in the stock market in November and December, 1890, though the losses and disturbance in this class of securities — “sugar,” “lead,” “whiskey,” and “cordage” — were only the beginning of the end, the first stones to be pulled from the structure which thereupon came crashing down. Even then, with the panic here, few recognized it.

II.

Bankers at New York, as a rule, were disinclined to express themselves freely as to the severity and probable outcome of the financial disturbance, evidently fearing it would cause unnecessary alarm. The public prints were therefore furnished with opinions that the “clouds” would no doubt soon pass away, while the fact that the “worst was over in the Argentine Republic,” where the premium on gold had fallen from 375 eighteen months ago to 280 by Christmas in 1892, was cited as evidence that the tide had turned. The charge that the Sherman silver law of 1890 was primarily responsible for discrediting our currency by drawing capital from American investments

was becoming more common. Treasury gold reserves* dropped below \$100,000,000, and many shrewd observers sought to explain away the outbreak of the panic in "industrials" as merely a healthful liquidation of over-capitalized securities.

MAY. The features in financial and commercial communities during this the first of the six months in which the panic of 1893 may be said to have run its course are pronounced. Following the liquidation of industrial securities, almost all stocks listed at the New York Stock Exchange went off in price,† bankers called old loans, refused new ones except on a much larger margin of collateral, and began scrutinizing commercial paper offered for discount as seldom ever before. They announced that only customers of the banks would be "taken care of"; and this was naturally followed by a restriction of commercial credits by manufacturers, commission merchants, and jobbers. So promptly and generally were these measures adopted that many business concerns were unable to shorten commercial sail to meet the gale, and failed, the record of business embarrassments‡ early in this month increasing on an average of from 8 to 16 daily throughout the country, as contrasted with like periods in the preceding year. It should be noted, however, that relatively

*One of the earlier unfavorable psychological influences was the intrenching on the \$100,000,000 of gold long agreed upon as the minimum reserve with which to guarantee the payment of the treasury notes. This took place in April, as shown in the following totals of gold reserve in the National Treasury at dates named:—

April 1, (over) \$100,000,000	August 3, (over) \$100,000,000
May 1, \$97,011,330	September 1, \$96,009,000
June 1, \$95,048,640	October 1, \$93,582,000
July 1, \$95,485,413	November 1, \$84,384,000
August 1, \$99,202,933	

† For a record of the monthly range of prices of some of the more conspicuous securities referred to, see the tabular exhibit on p. 253.

‡ The number of business failures each week throughout 1893 will be found in the table on p. 254.

few failures took place in Wall Street, which is explained by the operations of the Stock Exchange Clearing-house, established less than one year before. About half a dozen failures occurred, but the adjustment of losses in connection with shrinkages of values was carried out by stock deliveries involving relatively small sums, the workings of the system being a most important lesson as to the value of modern methods of business.

At the West failures in business were becoming conspicuous, notably among banking institutions; and throughout the country the proportion of failures of commercial enterprises possessing large capital was much larger * than usual. While country merchants had begun to buy for near-by wants only, the totals of bank clearings, covering transactions settled with checks, drafts, etc., at fifty-four cities, had not begun to decrease, for the reason that, owing largely to the existence of credits, the records of clearings, as a rule, indicated the situation of things as they stood a month or six weeks before. Time and call loans, however, at New York, Boston, and Chicago, had advanced sharply,—more noticeably at New York.† In the third week of May the appointment of a receiver for the Northern Pacific Railroad further depressed the stock market, while additional bank failures in Australia affected the London money and stock markets almost as unfavorably as did the Baring failure in November, 1890. An outcome of this was a weaker share market at New York, and the beginning of a general appreciation that the prevailing financial and commercial disasters were to extend well into, if not through, the summer. What appeared to the general public as a particularly ugly feature of the situation was the strength of foreign exchange, gold persisting in going abroad in large sums, an average of

* About 17 per cent. of the whole number as against 9 or 10 per cent. in prosperous seasons.

† See the table of rates in the three cities, on p. 254.

about \$1,000,000 daily. The rate for sterling exchange * was from $1\frac{1}{2}$ to $1\frac{3}{4}$ per cent. on the pound sterling, higher than in a like period in 1892 during the greater portion of the month.

The pressure in London to get gold was due to the stoppage of remittances by Australian banks. The latter had been lending their enormous English deposits on land and personal securities. This money had gone into land and other private and public schemes for "development," which in many instances took on an inflated character, and in others became veritable booms. With the inevitable collapse came failures of banks and the stoppage of customary remittances of gold to London. English money and share markets were almost panic-stricken, the Bank of England raised its discount rate, and gold promptly went from the United States. About one-third of the deposits of the Australian banks was by British depositors; and the effect of tying it up indefinitely was serious, although less so than if it had not been practically loaned for fixed periods.

In the last week of May banks West and North-west throughout the United States began calling on New York and other Eastern financial institutions for funds, and banks at the East more uniformly adopted the policy of making few, if any, new loans on commercial paper. The reorganization of Richmond Terminal appeared as driftwood in the stream of events, and bank clearings totals† finally began to register smaller volumes of general trade from week to week; but at the close of the month the stock market, both at New York and London, showed more confidence.

* The New York rates for sterling at the close of each week in 1893 and 1892 are given in the table on p. 254.

† The course of general trade (shown in the table on p. 255), indicated by bank clearings totals, weekly, in 1893 and 1892, is given elsewhere in connection with this article.

JUNE 1-10. Favorable features during the first third of the month of June were few, including only what was to be gathered from a continued feeling of comparative ease in the London market, resulting in a check to our exports of gold,* an unexpected increase in railroad earnings for May, and the announcement that an extra session of Congress would be called September 15, to take action on the then loudly demanded repeal of the Sherman silver act.†

August 17

The reverse of the picture included a further visible decrease in the volume of trade East, West, and Northwest, but relatively less South, heavily decreasing bank clearings, the banks still calling loans and restricting credits to such an extent that the open market for commercial paper‡ at New York had practically disappeared. Call loan rates, it is true, were easy; but the class of securities demanded, both as to quality and amount, was far above the normal. Time loans could rarely be obtained. An incident of this period was the disappointing attendance at the World's Fair. The depression in business circles showed itself in lower prices;§ and the effect on manufacturing industries was observable among iron furnaces, mills, and foundries, then beginning to work on

* Although no permanency was looked for.

† In the so-called silver States, in some Granger States, and in portions of the South sentiment was largely averse to the repeal of the measure.

‡ Early in 1893, as in periods of moderate prosperity, commercial discounts at New York ranged from 3½ to 4 per cent., for best paper to 6 per cent. During May discounts advanced steadily from 4 to 15 per cent., the bulk being at from 7 to 10 per cent. During June, as stated, the open market for commercial paper at times disappeared, there being no demand from brokers or others; and this continued true during July and August. The banks, in most instances, carried paper for regular customers, and made moderate advances to aid in carrying on business and contracts; but new enterprises had to be abandoned very generally, owing to inability to discount paper. By the middle of October the discount rate at New York had reacted to 8 per cent., and by October 28 was down to 5½ to 6 per cent. The pressure began to ease up materially during September.

§ See the table on p. 256, giving comparative quotations of staples.

orders. Enormous sums of money (\$5,000,000 in currency in one week) were shipped from New York to Chicago, so great had become the tension at the West, owing to inability of banks there to meet trade demands.*

JUNE 10-30. Increasing business failures, continued restriction in business, decreasing clearings totals, smaller totals of bank reserves at New York † and at other financial centres, and of gold in the National Treasury, declining prices, increasing rates of interest, and the old difficulty in effecting commercial discounts, remained conspicuous features of the situation during the middle of June, supplemented by what was styled "hoarding money" by the banks, notably at Chicago.‡

The clouds thickened within a fortnight and the New

* . . . "Early this year a large proportion of the millions of foreign money employed for speculative investment in American securities were withdrawn, our shares being by that act practically dumped into our laps, with a request to pay for and keep them. Banks here were called on to help take care of this unrecorded class of importations, and began to realize that for some time to come our available supply of funds would be smaller. This was accompanied by heavy exports of gold, owing in part to the smaller value of our exports of breadstuffs and cotton in the last fiscal year, and in part to practical purchases and exports of gold for the account of Austria, Germany, and other European nations. Private money-lenders, capitalists, and other individual depositors in banks had ere this begun to draw out balances, and place them in safe-deposit vaults, to insure their availability.—"*Phenomenal Aspects of the Financial Crisis*," in the *Forum*, September, 1893.

† See detailed report of weekly totals of New York bank deposits loans and reserves, by weeks, given on p. 255.

‡ In an address before the Boston Bankers' Association the Comptroller of the Currency, Mr. James H. Eckels, said: "Between May 4 and October of this year the withdrawals in individual deposits in national banks alone were \$299,000,000, and of banks and bankers' deposits to the amount of \$79,000,000,—a total of \$378,000,000. To meet this strain, the banks were compelled to call in loans, thus depleting the resources of active trade to the extent of \$318,000,000, and from banks and bankers to the amount of \$51,000,000, while to their borrowings was added \$37,000,000. In the light of these figures, apart from the statistics of a like nature which could be added from State, savings, and private banks, who can doubt but that the shrinkage in deposits on the one hand, contributing only to the fund of hoarded money, and the calling in on the other of loans necessitated by the demands of depositors withdrawing such vast sums from the activities of business, contributed more than all else to the stagnation from which we have suffered?"

York banks, and shortly after those in Philadelphia, began the issue of clearing-house certificates, based on securities deposited by banks, members of the clearing-houses, with which to pay bank balances ordinarily paid in cash, thus marking the extreme scarcity of funds. A corresponding amount of money was liberated for commercial use.* The New York banks had by June 16 been shipping west an average of a million a day for two weeks, cotton and woollen goods manufacturers were beginning to reduce outputs, and work only on orders, prices of leading food and other products continued their downward course, foreign trade totals were growing smaller, and in all directions (except at the South, which, strangely enough, succumbed to the ravages of the panic more slowly than other portions of the country) general business continued on the down grade. Stock market prices followed on a report that India was about to restrict the coinage of silver. It was on June 13 that the Secretary of the Treasury issued a statement bearing on the wide-spread discussion of the operation of the Sherman silver act of 1890, in which he pointed out that, if the policy of the silver purchase law should be continued and the Treasury Department compelled to issue bonds or otherwise increase the interest-bearing public debt, this would be done for the purpose of procuring gold with which to pay for silver bullion under the act of 1890.

By June 24 the New York banks had shipped \$23,000,000 to the West to relieve the demand there, about \$2,500,000 being sent to the Pacific Coast, where the panic had temporarily centred; but this failed to prevent the suspension of a score of banks in California. In Milwaukee, Minneapolis, St. Paul, Boston, and Providence extreme tension was being experienced in the money markets. A small importation of gold, \$500,000,

* For details as to the issue of clearing-house certificates, see the Note at the end of this article, on p. 145.

failed to attract attention, and New York stock market quotations at the end of June went off again on higher sterling exchange rates, and the financial disturbance on the Pacific Coast. Silver bullion * reacted again on the rumored abandonment of free coinage by India.

The general business situation at the end of June was a trying one. There were prospective disbursements on July 1, which hung like lead on the money market at the metropolis. The latter sent \$4,000,000 west within six days prior to July 1, silver dropped from 81 cents to 62 cents per ounce on the closing of the India mints to free silver coinage, and the American market for silver was "paralyzed," causing the Colorado smelters and miners to stop work and discharge thousands of employees. Detroit suffered from one of the localized panics which were appearing at intervals throughout the country, and the Salt Lake, Charleston, and Albuquerque clearing-houses ceased operations. In the New York stock market purchasing demand seemed to have disappeared; more industrial establishments were working only on orders, and many had shut down altogether, the only bright ray through it all being a temporary cessation of outflows of funds to the country from New York.

JULY 1-15. The earlier half of July brought a continuation of the improvement in feeling in financial circles, as it was found that customary disbursements and commercial obligations had been met without serious difficulty, and New York banks discounted a little more freely for the time. This was in marked contrast with the situation at Chicago, Philadelphia, Boston, Providence, and other cities, where extreme stringency continued unabated. The total amount of clearing-house certificates taken out by banks at the metropolis amounted to \$22,000,000; and encouragement followed the retirement of \$100,000 in certificates, in the (mistaken) belief

* See prices of silver bullion in the table on p. 256.

that the tide was about to turn. At this time savings-banks began to feel the effects of withdrawals of deposits, due evidently to an ill-defined but wide-spread fear of approaching insolvency among this class of institutions, because of the already unprecedented number of and loss from failures of national, State, and private banks.* Money was being hoarded in safe-deposit boxes

*During ten months of 1893 nearly 600 banks were forced to suspend, which, with those which resumed or did not resume during that period, had assets and liabilities as follows:—

	No. of Banks.	Assets.	Liabilities.
Total New England,	14	\$9,751,000	\$11,798,000
Total resumed,	1	241,000	142,000
Total not resumed,	13	9,510,000	11,656,000
Total Middle,	29	10,061,284	10,963,979
Total resumed,	3	2,772,727	1,932,051
Total not resumed,	26	7,288,557	9,031,928
Total Western,	214	55,932,536	47,828,198
Total resumed,	68	30,624,986	20,905,613
Total not resumed,	148	25,307,550	26,922,585
Total North-western,	147	50,118,375	49,474,567
Total resumed,	46	18,163,780	9,817,974
Total not resumed,	101	31,954,495	39,656,593
Total Southern,	96	24,876,267	22,630,596
Total resumed,	22	13,359,067	9,066,217
Total not resumed,	74	11,517,210	13,564,379
Total Pacific Coast,	74	30,997,152	26,311,639
Total resumed,	29	15,153,494	11,528,136
Total not resumed,	45	15,843,658	13,783,503
Total Territories,	10	1,547,000	1,179,812
Total resumed,	4	629,000	353,000
Total not resumed,	6	918,000	826,812
Grand total United States,	564	183,283,514	169,185,791
Grand total resumed,	171	80,944,044	53,865,991
Grand total not resumed,	413	102,339,470	115,319,800

It is found by examination of data published in *Bradstreet's* (November 18, 1893) that the effect of the panic on financial institutions was not only much more severe than in any other single department of business, "but was probably more disastrous than any similar series of banking embarrassments when the amount of liabilities of suspended banks is considered, not excepting even the financial disturbances of 1857 and 1837. But it remains to be explained that, while nearly 600 banks (including those in South Dakota) and banking institutions were forced to suspend between January 1 and October 31, 1893, owing \$169,043,791, these banks at dates of suspension were in possession of

and elsewhere, as suited the purposes of bankers, capitalists, and others having surplus funds; and no currency was coming East, notwithstanding previous heavy shipments West and South-west. This locking up of funds introduced a new and serious element of disturbance.

Officials of savings-banks, more noticeably, began to prepare for runs by securing loans where possible, and, where not, by selling United States bonds and other high-class securities to increase supplies of ready money. Interest and discount rates advanced;* and panicky feelings were observable among savings-banks depositors, induced in part by these efforts to meet expected demands. So scarce had currency become that some New York clearing-house banks presented drafts on the Sub-treasury† for payment, instead of sending them through the clearing-house, of which the Sub-treasury was (and is) a member. To add to the pressure, Chicago banks, which all along refused to resort to the issue of clearing-house certificates in order to utilize "over the counter" more of their cash, called again on New York for currency; but at this time Eastern banks were unable to respond, and, with runs on Kansas City and Denver banks, the feeling in financial circles was one of extreme depression. Weekly bank clearings totals were smaller than at any time since 1888; and iron, steel, woollen, cotton, shoe,

assets to the amount of \$183,185,389, indicating that in a large number of instances it was not failure, but the outcome of an unreasoning insistence, that perfectly solvent institutions liquidate on demand. A result of this peculiar phase of the financial panic of the summer of 1893 is seen in numerous and early resumptions of business by banks which had been forced to close their doors while perfectly solvent."

* See details of variations of time and call loan rates, in the table on p. 254.

† By this means they obtained ready cash, but the credit balances of the Assistant Treasurer (which have to be paid in cash) in daily settlements were unduly increased. Several of the leading banks in the clearing-house furnished the currency to meet this payment, while the Sub-treasury met the demands by refusing to pay currency and meeting drafts in gold. This checked the movement.

and glass industries were putting out fires and closing doors to an extent which caused general comment.

An indication of the extent of the financial depression early in July is found in the decline in prices of some of the more prominent railroad mortgages during the first half of the year.* Financial stringency had stopped investment demand, and lower values failed to attract investors. There was also no European demand for American bonds; and, as foreign holders were content to hold to investments in which they enjoyed the protection of "the gold clause," they were entirely out of the market.

JULY 15-29. The concluding portion of July brought no evidences of improvement, and it was apparent that the storm had not spent its force. The only favorable reports in financial circles were of moderately increased advances on wheat at San Francisco, with a temporarily easier feeling there, at New Orleans and New York, and the report that a large proportion of suspended banks in

* From *Bradstreet's*, July 8, 1893:—

<i>Bonds.</i>	<i>Price</i> <i>Jan., '93.</i>	<i>Price</i> <i>June 30, '93.</i>
† Atchison 4s,	81½	77½
Brooklyn Elevated 1st 6s,	116	114½
† Canada Southern 1st 5s,	105½	105
† Central of New Jersey Gen. 5s,	109½	110½
Chesapeake & Ohio 1st Cons. 5s,	103	100
Burlington Debenture 5s,	101½	97
† St. Paul General 4s A,	90	84½
North-western Gold 7s,	121	119
† Rock Island Extension 5s,	100½	101½
† Lake Shore 1st 7s,	117½	117
Louisville & Nashville Cons. 7s,	111½	108½
Missouri, Kansas & Texas 1st 4s,	79½	77½
Missouri Pacific 1st 6s,	111	101
New York Central Deb. 5s,	107	105½
Erie 2d 6s,	101½	89
Northern Pacific Cons. 5s,	68	61
† Pennsylvania Co. 4½s,	106	107
San Francisco Gen. 6s,	106	110
Texas Pacific 1st 5s,	76½	69
Wabash 1st 5s,	102½	99½
† West Shore 4s,	101½	100

† Including interest due July 1.

Colorado would be able to resume business and pay all demands. These advices were offset by further calls on the East for money by St. Louis and Denver, and by failures of banks at Louisville,—due to withdrawals of accounts by country institutions,—and others at Milwaukee, Spokane, and Portland, Oregon. Clearing-houses suspended operation at Hutchinson, Kansas, and at Helena, Montana; and commercial paper again went begging in nearly all larger cities. Mercantile collections were well-nigh impossible. There were \$7,000,000 sent West from New York without immediate effect being visible, while the announcement that the New York, Lake Erie, & Western Railroad would be placed in the hands of a receiver added to the weight of depression. Restriction of the regular monthly purchase of silver by the Director of the Mint, on the plea that prices of silver at New York were above a parity with those at London, served to direct attention to and discussion of the importance of repealing the Sherman silver law of 1890.

In the last week of July the stock market at New York was visited with a return of extreme liquidation, amounting to a renewal of panic, but without the excitement usually attending such a phenomenon. In the preceding week there had been a radical liquidating movement* in leading shares.

The net shrinkage of about twenty representative stocks from the average price at the highest quotations of the year, the average price in January and February, to July 26 was from 82 to 45, an average decline of 37 points in six months. In the Baring panic the average decline for a number of active stocks was only 20 odd points below the highest figures of 1890 in September, just after the passage of the Sherman silver law.

In industrial lines reports of shutting down of iron,

*Taking the lowest quotations in 1890 during November and December

steel, cotton, woollen, and other manufacturing concerns continued the order of the day, and many mercantile as well as manufacturing institutions were finding it difficult to procure funds from banks where they kept accounts to meet weekly pay-rolls. The attitude of banks which refused to cash checks (on balances to the account of customers) excited criticism and emphasized prevalent uneasiness. Absolute refusals to cash such checks were relatively few; but, as a matter of self-protection,—in fact, as a safeguard of the general commercial welfare,—banks, owing to scarcity of funds from causes previously referred to, were obliged to urge on customers the importance of checking out as little actual money as possible, and then only when absolutely necessary.

Mercantile failures had been increasing rapidly until the weekly totals reached a maximum of 85 to 90 daily

(the Baring panic) and the lowest quotations on July 18, the result is striking. A comparison of prices at the two periods is as follows:—

	<i>Lowest, 1890.</i>	<i>Lowest, July, 1893.</i>
Atchison,	23½	17½
Canada Southern,	42	43
Canada Pacific,	67	—
Burlington,	80	75½
Chicago Gas,	32	32
St. Paul,	44	54
North-western,	96	94½
Rock Island,	61½	56½
Omaha,	19	32
Lackawanna,	123½	130
Illinois Central,	85	87½
Lake Shore,	100½	113½
Louisville & Nashville,	65½	51½
New Jersey Central,	90	95
New York Central,	96½	96½
New Pacific Preferred,	55	19
Pacific Mail,	27½	10½
Missouri Pacific,	53	25½
Reading,	26½	13½
Union Pacific,	40	17½
Wabash Preferred,	15	12½
Western Union,	71½	74½

In these stocks the shrinkage in value of their share capital as shown is \$265,000,000, "more than the aggregate silver production of the United States in the last five years."

as contrasted with an average not above 25 to 30 daily in like periods one year before; though it should be added that an extraordinarily large proportion were embarrassments of really solvent concerns, which were compelled to suspend,* owing to inability to make collections or to carry out engagements, because of what may be characterized as almost a dead-lock in business circles.

This situation is made clear by reference to domestic and foreign trade † indications, exports and imports, bank clearings and railway earnings, ‡ an examination of which

* Failure statistics for the United States for six months during four years, as reported by *Bradstreet's*, are as follows:—

	<i>Number failures.</i>	<i>Estimated assets.</i>	<i>Liabilities.</i>	<i>Per cent. assets to liabilities.</i>
1893,	6,239	\$105,371,813	\$170,860,222	61
1892,	5,351	28,985,106	56,535,521	51
1891,	6,037	48,206,896	92,370,282	53
1890,	5,466	30,025,116	62,867,962	48

Nine months' totals, January 1 to September 30, are given as follows for like years:—

	<i>Number failures.</i>	<i>Estimated assets.</i>	<i>Liabilities.</i>	<i>Per cent. assets to liabilities.</i>
1893,	11,174	\$225,758,881	\$324,087,768	70
1892,	7,378	39,209,701	76,971,771	51
1891,	8,866	71,811,320	138,811,510	51
1890,	7,538	44,450,712	92,541,950	48

During preceding relatively normal years the ratio of assets to liabilities ranged from 48 to 51 per cent.; but in 1894 (panic year) the proportion of assets to liabilities was 55 per cent., because during periods of panic or extreme stringency of the money market many who may be regarded as solvent are obliged to suspend payments, in many instances forced to fail.

† See table on p. 252.

‡ Totals of railroad gross earnings by months in 1893 and 1892 are given in the following table:—

<i>Months.</i>	1893	1892
January,	\$55,860,000	\$55,100,000
February,	54,892,000	56,984,000
March,	61,891,000	58,652,000
April,	56,001,000	54,148,000
May,	65,018,000	60,314,000
June,	59,469,000	57,755,000
July,	56,824,000	59,720,000
August,	54,737,000	63,126,000
September,	58,195,000	64,917,000
October,	51,163,000	52,409,000

shows that the volume of business at the close of July had decreased to about one-half the normal at that season. Merchants were sending out fewer or no commercial travellers to secure fall trade, and receiving with disturbing frequency requests to cancel orders previously placed with them for autumn delivery.

In short, the end of July had brought no signs of near-by relief.

JULY 29 to AUGUST 12. Sales of government bonds by savings-banks and individuals in order to raise funds were taken advantage of by national banks at New York, which purchased a large amount, and used it as a basis of additional circulation with visible results in easier money, though only temporarily. The other favorable influence was the meeting of Congress August 7, in response to a call from the President for a special session to repeal the silver bill. This was looked on by a majority of the general public, as appeared from floods of petitions for such action from business organizations, as the beginning of action for the restoration of confidence in the standard of value* of money in the United States and the loosening of purse-strings at home and abroad, which, as declared, must precede a revival of prosperity. Savings-banks, by taking advantage of the "sixty-day clause," prevented serious runs, and were selling fewer securities; but money was still hoarded, and currency went to a premium at New York, where 1 to 3 per cent. was paid for notes and gold by bankers, merchants, and manufacturers.

* On December 4 the Comptroller of the Currency made the following statement in his annual report: "The financial situation of the past month was not the result of either a lack in the volume of currency, of which there is now a plethora, or a want of elasticity in the present system of issuing it, but arose from a loss of confidence on the part of the people in the solvency of the distinctively monetary institutions of the country. It is worthy of note and of serious consideration that at the very time the scarcity of currency for business purposes was at its height the country's volume of currency was increasing the most rapidly, and the amount per capita was much larger than in any recent year."

Considerable speculation in this lack of supply of currency took place, some brokers making a specialty of it. Silver dollars also brought a premium, as the demand for currency was more pressing than at any previous time, banks cashing checks, even for customers with ample deposits, only when absolutely necessary, and, in some instances, even then only in part.

This scarcity of funds prevented a market for New York exchange at other centres, and domestic exchange was not sold at New York. Some merchants having pressing bills to pay at the West bought the currency, and sent it there by express, notably Eastern purchasers of grain and provisions. For the first time probably, in a widely extended country having modern mercantile ramifications, in which ninety-five per cent. of the wholesale transactions is usually done on credit, general business throughout the United States was being done almost on a cash basis. As a result, commercial discounts were almost impossible to make, and sales of merchandise were of a hand-to-mouth character. At Philadelphia and Buffalo the expedient was adopted of issuing certified checks as currency, marked "Payable through the clearing-house only," which practice was adopted in some other cities. Embarrassments of Nashville banks added to the list of disasters of this nature; and the restriction of industrial production in all leading lines was more pronounced than ever, one investigation* into this phase of the situation reporting no fewer than one million idle industrial, mining, building, and other employees throughout the country contrasted with four hundred thousand similarly out of work at the period of greatest depression following the panic of 1884.

During this period about \$13,500,000 in gold was reported in transit for the United States, some of which was stated to have been purchased at from 1 to 2 per cent.

* *Bradstreet's*, August 12, 1893.

premium. Actual receipts of gold in the first half of August amounted to about \$10,000,000. A feature of gold importations was noted in purchases abroad of \$1,500,000 by Chicago capitalists and bankers, and \$600,000 by banks in Boston.

AUGUST 12 TO SEPTEMBER 2. The latter half of August continued most of the unfavorable conditions noted in the preceding fortnight, but at the close brought evidences of the beginning of the end.

Country banking institutions and industrial establishments were still paying 1 to 3 per cent. premium for currency in the third week of August; and the use of certified checks as currency was more general, though there were fewer failures in business circles. The Treasury Department arranged to release silver dollars at the New Orleans mint to aid in moving the cotton crop, on the deposit of currency with the Sub-treasury at New York, which served to help the movement of that crop materially. During the week \$10,000,000 in gold was received from, and \$8,000,000 more was ordered in Europe. In the following week, while New York banks would not make new loans, they were granting renewals more freely, although commercial discounts were obtained with difficulty except at a few Western cities. But there was less hoarding of money,—a distinct gain,—and the stock market reflected this with a more cheerful tone. The premium on currency had declined to $\frac{1}{2}$ to $\frac{1}{4}$ per cent. at New York; and there were fewer offers to pay a premium for gold in Europe, although the Bank of England rate had been advanced to 5 per cent., to prevent exports of gold to the United States. A check to the payment of premiums for currency was administered by the banks refusing to cash checks for those who desired to draw out funds to sell at an advance over face value. The receipt of \$6,500,000 in gold from Europe, and the engagement of \$3,000,000 more, were followed by the announcement

that Chicago and other Western banks had arranged to provide for expected requirements to move the cereal crops.

Resumption of business by suspended banks marked the concluding week of August, and hoarding of funds was less noticeable, New York exchange rates at the West were lower, savings-banks announced that not more than 10 to 20 per cent. of withdrawals of deposits demanded (under the sixty-day clause) were to be called for, the premium on currency fell to $\frac{1}{2}$ to $\frac{1}{4}$ per cent., the offers of a premium for gold in Europe disappeared, and \$7,500,000 in gold was received at New York from abroad. Add to these influences the growing belief that the Senate would pass the bill to repeal the silver purchase bill of 1890.

In mercantile circles prices of staples * were still greatly depressed, collections were as difficult to make as ever, and woollen manufacturers reported many cancellations of orders. The bank clearings total for the week touched low-water mark, reflecting the general situation a few weeks earlier, when the volume of business was only about one-half the normal. But it was evident the clouds were breaking, for more travellers were being sent out, indicating a revival of confidence, and there were not wanting signs of a tendency on the part of general trade to increase.

SEPTEMBER. September brought more confidence in the stock market, which may be noted by reference to the accompanying exhibit of fluctuations in prices of securities; also halting advances followed by a settling down in the volume of general business and of industrial output.

The premium on currency disappeared, New York as well as other bank deposits were increasing,† funds were going East from the West, larger Eastern money markets were easier, bank clearings were gaining in volume, there

* See the table of prices on p. 256.

† See the table on p. 255.

were freer offerings of loans on time and extensions of discounts, a rapid retirement by New York banks of clearing-house certificates, and more favorable weekly bank statements.

The earliest revival of trade was reported from regions in and tributary to the Ohio and Mississippi River Valleys; but industrial production, which gained somewhat early in the month in almost all sections East and West, soon fell off again. Collections were not improved, and doubt whether the Senate would pass the silver repeal bill had a noticeable influence on the view of the public whether business could or could not expand in the near future. The receipt of \$2,500,000 in gold from Europe in the first week of the month ended such importations for the time being.

Cotton and woollen mills which started up were running on short time with reduced force, but grain and cotton crops were being handled freely. Speculation was in a waiting attitude, operators looking forward to repeal of the silver purchase act in the Senate and to revival of confidence abroad in American currency and securities.

OCTOBER. The month opened with more cheerful reports concerning domestic trade, so far as prospects and "feeling" were concerned; but there was some conservatism in making loans, and delay of action by the Senate had an unfavorable effect. During the second week business generally was of a hand-to-mouth character, though reports respecting the outlook were more cheerful, except for the drag in the Senate. Collections continued very slow; but available funds in bank were heavier, and some demand was noted on the part of lenders for good commercial paper. In the third week like features were observed. The production of pig iron was at the rate of one-third of that one year before, and other leading manufacturing industries continued depressed. The list of railroad embarrassments was added to by a receivership

for the Union Pacific and the failure of the Northern Pacific Company. The fourth week brought more encouraging advices, especially the decision of the Senate to act favorably on the repeal of the silver purchase act. There were also gains in the volume of trade, increased purchases of shares and bonds at the New York Stock Exchange, larger supplies of money to lend on time, the receipt of \$500,000 in gold from Europe, and further offerings to purchase commercial paper. In the following week, ending November 4, an early effect of the repeal of the silver purchase act, psychological or other, was seen in reports of a better feeling in commercial circles, pointing to a revival of confidence. More travellers were sent out by jobbers and others, but neither at that time nor in several succeeding weeks did the progress of expected revival meet earlier anticipations.

III.

The writer on panics quoted at the beginning of this paper says of the "lowest point of depression" following panic that it is characterized by "a steady and radical reduction of loans and discounts, . . . until new enterprises are very scarce, till prices are very low, till there is a wide-spread idleness among workmen, a decrease in salaries and interest rates, when the public is wary and speculation dead and expenditures are cut down as far as possible." This, he adds, may be taken to mean "a rapid and continued resumption of every prosperous business," though, "if the above process is only partially performed, renewed trouble must result."

Few who have carefully read the foregoing will be able to resist the conclusion that we have recently seen all these characteristics * of "the lowest point of depression."

* On Saturday, December 2, the New York banks held \$76,096,900 of surplus reserve, a gain of \$5,261,725 on the preceding week and of \$69,603,150 on the corresponding time a year ago. Their deposits were \$32,483,400 more than a year ago; specie, \$25,269,600 more; legal tenders, \$52,155,000 more; and loans, \$35,168,100 less.

There remains, apparently, only one influence which may be permitted to act as a brake on the wheels of trade and industry.

With the certainty of tariff changes before them, manufacturers, merchants, and importers greeted the opening session of the Fifty-third Congress with the expectation and hope of speedy action. No repetition of the delays incident to the fight over silver repeal was desired. A restoration of confidence and a revival in business, in their opinion, were to depend largely on prompt action on the tariff bill by Congress, so that contracts and arrangements for future dealings might be made intelligently. Values could not be settled nor wages agreed to, nor mills and factories and furnaces put steadily to work, until the future of the tariff was known.

ALBERT C. STEVENS.

NOTE.

Correspondence with clearing-house managers throughout the country shows that, while at many points, owing to free shipments from larger centres and other often local causes, the banks did not have to resort to issues of clearing-house certificates or the use of checks "payable through the clearing-houses only" as currency, at some points the reverse was true, notably in the following instances:—

The New York Clearing-house Committee finished its work by cancelling \$400,000 certificates October 31. The first issue of certificates was \$2,550,000 on June 17. In all, \$41,490,000 were issued; but the maximum outstanding at any one time was \$38,280,000, from August 29 to September 6, when cancellations began, finishing, as above, after fifty-six days, Sundays included. This is a remarkable achievement, as shown by comparison with previous occasions. In 1873 the first issue was \$6,650,000 on September 23. The maximum, \$22,410,000, was reached October 3; and it was not until January 14, 1874, that the last cancellation was made. In 1884 the first issue was \$3,820,000 on May 15. The maximum, \$21,885,000, was reached May 24; and by August 28 all but \$250,000 had been cancelled. This amount, held for the Metropolitan Bank, was not finally cancelled until September 23, 1885. In 1890 the first issue, \$1,495,000, was November 12. The maximum, \$15,205,000, was reached December 12; and the final cancellation was effected December 22. It is note-

worthy that the repeal of the Sherman act and the retirement of New York clearing-house certificates both took place the last week of October.

The Associated Banks of New Orleans resorted to the use of clearing-house certificates, but only as a means of settling balances resulting from the exchanges daily at the clearing-house. The first issue of certificates was on June 26; total issue, \$1,029,000; and on October 31 the last of the certificates were retired. On August 9 the banks adopted the limiting of currency payments over the counter and the system of certifying checks for all other payments by the banks to extend for sixty days. Long prior to the expiration of the sixty days, however, the banks were almost in their normal condition, and meeting all the legitimate demands on them for currency.

The Chattanooga banks issued only \$10,000 in certificates with which to settle balances between banks.

Atlanta banks issued clearing-house certificates to the extent of \$123,000.

At Pittsburg the total issue amounted to \$985,000, and at Baltimore \$1,500,000.

Boston clearing-house banks report the issue of loan certificates as follows: total amount issued, \$11,695,000; first issue, June 27; last issue, August 23; first retired, August 18; last retired, October 20.

The Philadelphia clearing-house issued approximately \$10,000,000 worth of clearing-house certificates, the first of which was taken out about June 16, all of them being retired by December 1.

At Wilmington, Delaware, bank depositors were requested August 7, by order of the clearing-house, owing to scarcity of currency, to mark checks "Payable through the clearing-house only." The clearing-house manager wrote October 31: "Banks having large wages' accounts refused to allow entire pay-rolls, but this was only for a week or two. The banks here were able to allow pay-rolls several weeks before the Philadelphia banks eased up."

Jacksonville, Florida, banks, members of the clearing-house, having safe-deposit boxes, refused to rent them for hoarding or putting away currency; and resolutions were adopted that, "when check or checks on any member of this Association are received for collection, with request that remittance be made in currency by express, the said check or checks be certified 'Payable through the Jacksonville Clearing Association' and returned"; and that "checks, drafts, etc., received for collection or deposit, or which are cashed, are taken at the risk of the owner until final actual payment is received."

The Nashville banks decided on individual action, contrary to the counsel of some local financiers. As a result, there was no reciprocity of relief. The Fourth National had accumulated a large surplus, and felt able to weather the panic. In a day or two it fell back on limited payments, and so kept open. The American National, after an hour's experience, saw the suicidal nature of the policy of attempting to face the panic, and closed. The First National was the first to shut up. The latter secured extension from depositors, and resumed. The American resumed in a few weeks, and issued certificates of deposit aggregating only \$30,000, all of which were soon called in. The Fourth National issued only \$8,000 in certifications, which were soon retired, and in two weeks after the crisis threw open customers' accounts to checks. It is thus seen that the adoption of certificates of deposit was hardly more than nominal.

The highest amount of clearing-house certificates in circulation at Bir-

mingham, Alabama, at any one time was about \$33,000. The following form of clearing-house certificate in use at that city accompanies the letter from Birmingham : —

BIRMINGHAM, ALA.,.....1893.

This certifies that the.....Bank, of Birmingham, Ala., has deposited with the undersigned Committee of the Birmingham Clearing-house securities to the value of One Hundred Dollars, to secure to the bearer hereof the payment of the sum of FIFTY DOLLARS in lawful money of the United States, payable at any time after ninety days from date hereof.

This certificate will be received on deposit by any Bank or Banker of the Birmingham Clearing-house at par.

.....Committee.

At Richmond, Virginia, in order to offset the effects of the stringency, payment of exchanges between banks, usually settled on presentation, "for a short time, by mutual agreement between banks, was not demanded."

The clearing-house banks of Syracuse passed a resolution requiring each of them to ask depositors to stamp checks and acceptances of any considerable amount "Payable only through the Syracuse Clearing-house or in New York Exchange." This was done to check collections by express, thus taking the currency out of the city.

At Worcester "several concerns with large pay-rolls paid off with checks for several weeks instead of currency. This was the only unusual expedient resorted to."

Some Boston checks were used by Fall River banks to take the place of currency, but not in a considerable amount. One trouble was to meet weekly pay-rolls. When all mills are running, they require \$175,000 weekly in currency. This could not be met; and pay-roll checks were issued by the mills, payable through the clearing-house. "About \$200,000 worth were issued during August."

New Haven, Connecticut, banks "encouraged depositors to stamp their checks 'Payable through the clearing-house only'; and, when checks of large amounts were presented for payment, it was the custom, unless holders insisted on receiving cash, to certify them, and request that they be deposited, so that they would be paid through the clearing-house."

A like practice was resorted to by banks at Hartford, Connecticut.

The president of the City Bank of Buffalo wrote October 27: "Certificates were issued here first on June 27, and reached the highest point on July 9, when they totaled \$925,000. During the currency scarcity only two banks here issued certified checks as a substitute; and the amount was limited, and existed for a very short period. Most of us did not believe this to be the proper method of ameliorating scarcity. The fact is, during the entire period of the currency famine, Buffalo had about fifty per cent. more cash than she usually carries, and really did not need any substitutes."

The Lexington, Kentucky, clearing-house manager wrote, November 1, that during the late panic the members "stood, as it were, each one for itself. . . . Since then steps have been taken to make it a legal concern"; and, should



financial trouble come again, "the Association will doubtless be fully prepared for emergencies."

At Detroit, Michigan, the banks resorted to the use of clearing-house certificates, the largest amount issued being \$360,000.

The St. Joseph bank clearing-house manager writes that, in the case of one or two of the banks which were close pressed, "several of us gave them the assistance necessary to tide them over; and St. Joseph emerged from the panic without a failure."

Kansas City banks, "as were the others throughout the interior, were greatly assisted by the patriotic and wise action of the New York City banks, who supplied the country with currency, the disbursement of which compelled them to resort to the use of these other representatives of money."

Chicago banks were fortunate in having a good supply of currency, so that at no time did it command a premium there. This is attributed by the manager of the Chicago clearing-house, in some measure, to "the inflow from the World's Fair traffic, although during the early part of the season the Fair occasioned a very severe drain upon our financial institutions."

The clearing-house manager at Minneapolis wrote November 10: "During the summer months, while currency was scarce, we had, generally speaking, enough for our needs; but, as harvest approached, considerable uneasiness was manifested as to whether or not we were going to be able to handle our crop of wheat, as we knew full well that we could not, as in the past, rely upon our New York friends for any assistance in this particular. Some currency was brought in, I think chiefly from Chicago. I believe the elevator companies had under consideration a plan for issuing small certified checks to purchase grain at their country elevators, and a few of these checks were issued; but, before the practice became at all general, it was found to be a fact that, owing to the comparatively light crop and low prices, we had enough currency here or at our command to move the crop, and the issue of these checks was at once stopped. The total amount issued aggregated but a small sum; and it does not seem proper to even mention the issuing of them, as the issue was so limited. Shortly after the crop-moving began, we were in receipt of telegrams from our Eastern correspondents, saying that they could ship us currency."

At Fargo, North Dakota, clearing-house certificates to the extent of about \$10,000 were issued in denominations of five, ten, and twenty dollars, each bank taking out certificates being required to deposit double the amount taken out of approved collateral. All the banks of the city were made liable on the certificates. The issue of certificates stopped the withdrawal of funds from the banks. "Most of the business men were willing to accept them in lieu of currency. They certainly helped through the panic, and have all been redeemed."

The Seattle, Washington, banks met, and resolved early during the depression that "they would stand by each other through thick and thin." This "pulled all of our institutions through in good shape, without resorting to the methods adopted in other places."

[The foregoing shows that banks in twelve cities issued about \$63,485,000 in clearing-house certificates with which to pay bank balances, and release temporarily that amount to meet the requirements of the general business community.]

THE NATURE AND MECHANISM OF CREDIT.

/ THE function of money is to express generic value. A commodity becomes money only in so far as it loses its specific utilities and embodies utility in general. It is not because the gold in the half-eagle may be put to various artistic uses that this coin is money; but it is money because it incarnates in a concrete form a certain amount of that homogeneous, generic force called "value," which, residing in many specific forms, makes up our aggregate wealth. The idea of a fund of "pure capital," of a fund of "general wealth," of "value in the generic," is well known to the readers of Professor J. B. Clark's writings. It is illustrated by the "hereditas" of Roman law or the "estate" of a deceased person in English law. A deceased person has left a variety of things, concrete, dissimilar, incapable of comparison or addition by physical measurements. These specific things, however, in the eye of the law constitute a whole, a homogeneous total of value, capable of exact division into parts precisely equal both as to quantity and quality. Under the auctioneer's hammer, houses, lands, ships, railway shares, household furniture, business partnerships, jewelry, horses, pictures, lease of a church pew, and the good will of a business are beaten into a unity, strictly alike in every part,—a sum total of value. Those who share in the inheritance (in the absence of specific bequests) receive, not specific things, but a certain portion of the value of the inheritance; and this portion of value is expressed in money, which they "invest" as they choose.

John Locke apparently thought of all commodities as lying in one scale of a balance held in equilibrium by the total of money lying in the other scale. A somewhat

similar conception is the basis of the "quantity" theory of the value of money. The conception is true when by "money" is meant the sum total of values expressed in terms of the money unit. The conception, however, is an absurdity when by money is meant only standard money, specie, or even specie plus its formal representatives. The amount of "horse-power" used in the world has no traceable connection with the number of horses used; and yet "horse-power" represents mechanical force in the generic, and all the mechanical force used may be expressed in terms of "horse-power."

The point to be kept clear is this: while the monetary unit must be a concrete economic good, it is not a specific good. Not the specific availability of the gold in the sovereign for making watch-cases and gilding, but its generic availability for all uses, is what constitutes it the monetary unit. As a specific commodity, it is not money. As money, it is the generic commodity, or, in Professor William Smart's phrase, "the universal commodity."

Money performs this function of representing generic value chiefly in two ways: first, by enabling men to get a conventional unit for measuring the value of specific goods; and, second, by furnishing them with a general title of economic ownership over all specific values. In the first place, then, money is a measure of value. This has been denied by some writers. Their error is due to one of two misconceptions. They either regard value as a mere numerical ratio between different economic goods or they think the measurement of value impossible, because the value of the unit itself varies. If value is merely a numerical ratio, of course it cannot be *measured*. But even Ricardo, who is regarded as the author of this conception of value as a ratio, often says "relative value" when he means a ratio, and "value" when he means a quality or force in a commodity. Value conceived as a *power*, as a force residing in goods, is ca-

pable of measurement. Weight is a force in an object due to the action upon it of the earth's mass. Change the mass of the earth, the weight of the object changes. Remove the object five thousand feet further away from the centre of the earth, its weight changes again. Value is a force residing in objects called goods. The value of a good is due to the action upon it of human wants. Change man's desires for this good, its value changes. Remove the good one thousand miles further away from the men who want it or remove it one hundred years into the future, its value again changes.

It is true that the aggregate of men's desires for any good is changing constantly and rapidly, is always dynamic, while the earth's mass is subject only to slow, secular variation. It is more difficult, therefore, to get accurate measurements of value than of weight. But difficulty of accomplishment is not the same thing with inherent and essential impossibility. It is as strictly scientific to speak of measuring value as it is to speak of measuring weight. The fact that value is a psychical force, while weight is physical, does not alter the case. Any force may be measured in terms of some unit of effect arbitrarily chosen. In measuring weight, a certain quantity of some metal is taken; and the force of gravitation exerted upon it under assumed conditions is treated as the unit of weight. By comparing the force of gravitation exerted upon any other objects with this unit their respective absolute weights may be expressed in multiples of this unit, and their weights relative to each other as numerical ratios. Similarly, in measuring value, a certain quantity of tobacco of a given quality, or of gold of a given fineness, may be taken, and the value given to it under assumed conditions by men's wants treated as the unit of value. The absolute values given to any other goods by men's wants may similarly, by comparison with this unit, be measured by it and expressed in multiples of

it, while their relative values will likewise appear as simple numerical ratios. The difference between these two classes of measurements is not one of essential nature. Yet it must not be forgotten that value is a highly complex force, that values of different goods, including the unit, are affected very unequally by changes in human want, and that no objective unit of value has ever been obtained which could be applied without error.

In money, then, as the homogeneous representative of that fund of value which resides in specific goods of all kinds, all the different utilities which different goods have in their peculiar uses, all the variations of personal valuations of these goods, are levelled out and conventionalized and rendered measurable. The monetary unit is a conventional unit of measurement for value; and thus rates of transfer for different goods are commonly expressed in it. Of great importance is this fact that under the system of specialized production the value of all the specific services rendered by the various producers, whether these are direct services or are embodied in tangible goods, are expressed in a generic form in money. Men think value in terms of money. Their income is regarded as a stream of money,—so much daily, monthly, yearly; and their activity is bent to increasing this flow.

Money also represents generic value as a title of economic ownership to values in general. In the words of Carlyle, "Whoso has sixpence is sovereign to the length of a sixpence over all men; commands cooks to feed him, philosophers to teach him, kings to mount guard over him, to the length of a sixpence." The holder of money is the creditor of other men. He has rendered his service to society as producer, and has received the money as an order upon the producers of the goods he desires. The order is perfectly general in character. It is an order in blank for so much value due from society to him, payable on demand in such goods as he calls for. He does not

wish the gold. It is necessary merely as the understood unit of measurement. The bullion value of the gold is not the essence of his claim, but is merely "collateral" upon which he can realize if the producers will not honor the order in the specific forms he chooses. It is a collateral, too, upon which every holder would lose enormously if the bullion uses of coin were alone considered. The average bullion value of gold for personal use to the holders would be possibly not one-half of the present value of gold bullion.

Money, therefore, is a claim upon values which has no time or space limits. Within the economic order of society it is good everywhere and always and for every economic good. Thus income becomes, in the mind of the consumer, a generic purchasing power, which he can transform into whatever specific sources of satisfaction his wants dictate.

What I have said implies that money is a form of credit, a point which needs wider elucidation. In the proof of this point I shall also prove the main thesis of the present paper; namely, that the economic force called *credit* is the indispensable agency which inheres in the system of specialized industry.

A man, entering upon any productive operation with a view to sell his product, parts with his labor only upon the tacit assurance given by society that it will buy his product with the special products he wants. He gives credit to the consumers of his product, *i.e.*, to society as consumer, to that extent. His specific product is to him a mere credit instrument, the evidence of his claim. He produces it because he finds that, by presenting it as an order on society for the goods he wants, he can get a larger surplus over subjective cost than though he produced these latter goods himself. It has no "intrinsic" value to him, or at best only a value below cost. Left

to himself, he would never produce it. He produces it only because society as consumer has promised to redeem it at a premium on presentation. For personal uses it has to him a less than marginal utility. The value in it which enables him to get a return for his labor is its objective value, its social or market value. It is upon the basis of this market value, this customary demand of society for his product, that he extends credit to society by producing what he does not want. The personal value of the product to him is simply a "collateral" which may save him from total loss if society refuses his product.

The process is essentially the same whether he barter his product directly or sells it for money. In the latter case, he surrenders his special product, which is in effect an order upon the consumers of that product, for money, which is a generic product, and thus an order upon all the members of society. The use of money simply divides his total surplus over cost into two parts. As producer, he gains in selling his product for money; for the money embodies its objective, conventionalized value, its marginal utility to society, while to him its subjective value was below the margin. He thus gains "producer's surplus." As consumer, he gains again by exchanging the money for the specific goods he wants; for to him they have a value above this margin. Here he gains "consumer's surplus." In barter this distinction does not appear. The distinction is not altogether justifiable,* for the act of production is not finished until the desired goods are in his hands as a consumer. The use of money, however, increases the surplus over cost to every one by economizing the labor required to "market" products; *i.e.*, to get them into the hands of consumers.

The money is only another form of credit, possessing the character of wider acceptability than the special product. It is generic or universal credit. With barter and

* A point suggested to me by the late Dr. Merriam, of Cornell University.

with money alike the whole system of specialized industry is dependent upon the psychical force, credit. Society, by its customary consumption of certain amounts of certain kinds of goods, issues tacit promises to the producers of those goods to pay them in the goods they desire. Upon the "credit" of these promises all production for exchange is carried on. The holders of all products for sale and the holders of all money are creditors of society in this sense. In rude industrial societies the redemption value of these credits—*i.e.*, the quantity of desired goods which can be obtained for them—is uncertain and irregular. Only those goods will be produced for exchange which can be counted on as possessing a wide margin of possible gain above cost. So soon as society becomes well organized, "market prices" render producers tolerably certain of the redemption value of their holdings; and the risk involved in such credits steadily diminishes, until nearly all goods are produced for sale.

I have ventured to call these credits *customary* credits, to distinguish them from that class of transactions usually known as credit transactions. The latter might well be called *formal* credits. The distinction is a legal one; but I hope to show that, as an economic force, the two kinds of credit are essentially the same, and that it is merely the legal limitations of the word "credit" which have hitherto mainly guided the course of economic discussion. Customary credits are not legally enforceable. (There is no legal obligation to exchange goods at fixed ratios, nor, in fact, to exchange them at all. Formal credits are expressed in definite contracts, legally enforceable. Such are promissory notes, book credits, and the like. The sovereign power in society asserts itself in customs which gradually ripen into customary law, and finally into positive statute law. These are all essentially the same: they are all "law," and in every society the

positive law remains the smallest part of total *law* of the society. Similarly, this economic force of credit, based on the faith of men in the uniformity and reasonableness of each other's voluntary acts, appears first as custom, vague and uncertain, gradually takes on a certain regularity as markets are held and money is commonly used, and finally comes in its highest development to definite forms, in which many of the elements of risk are eliminated. Similarly, again, even in the most developed stages, formal credits, like positive law, remain the smallest part of the total *credit* existing in the industrial society. There is, however, an important economic distinction between two kinds of credits of which I shall speak later.

It will make my meaning clearer to rehearse in a concrete form the main points already made, extending at the same time the range of discussion.

From the point of view of credit, industrial development may be divided into five stages. Wheat-growing may be taken as rudely typical of the development:—

I. In the first stage the wheat-grower is practically isolated from the rest of the world, thrown entirely on his own resources. Wheat does not satisfy all his wants. He must therefore, after producing a certain amount of wheat, shift his labor to the production of other things. Seeking the highest net satisfaction from his labor as a whole, he applies it in his various operations, according to the familiar law of marginal equivalence. Credit has no place in such an economy. In his single consciousness are measured both the utility of the various products and the cost of their production.

II. In the second stage our farmer has a few neighbors,— a blacksmith, a shoemaker, a tailor, a storekeeper, a school-teacher, a parson, and the editor of a country newspaper. The farmer has learned that he gets a greater surplus utility by producing more wheat than he needs for personal uses, and bartering this excess with his

various neighbors in return for their goods and services. The wheat-grower has now taken the first and most difficult step in industrial civilization. A new economic force has been called into action, which is the fundamental agency in economic progress. This force is credit. The problem before his mind is nothing less than this, in its entirety: "I must give up my habit of making personally the things I want, and must trust some one else to make them in return for my surplus wheat. If other people will not take my wheat, I shall lose the most of my labor. If they do not make the things I want, I shall also lose by having to accept things of less value to me." It is safe to say that, if this problem as a whole were present to our farmer's mind, he would never see the gain in changing his economy. An unplanned surplus of wheat some year enables him to give up shoemaking for that year, that being the operation which he finds most laborious. Gradually and hardly, with lingering yearnings for the good old times, he comes to grasp the fact that he "makes more" by growing regularly a surplus of wheat over his personal need, and depending on the sale of this surplus for his other goods. The old ideas die slowly, however.*

The radical character of this change to specialized lines of production is seen in the fact that in direct production for the satisfaction of one's own wants, intensity of want with corresponding utility of product on the one hand, and disutility of production on the other — utility and cost — are measured and balanced in the same consciousness. The wanter and the worker, in regard to each eco-

* In Eastern New York, not much over twenty years ago, my grandfather, a farmer in comfortable circumstances, with habits of mind brought down from his childhood under the Presidencies of Washington and John Adams, continued to spend a considerable part of his time in dressing flax for ropes and grain-bags to use on his farm, and even in making his own shoes — and mine, which latter fact has impressed the process upon my mind, for they were fearfully and wonderfully made.

conomic good, constitute the same person. This unity of consciousness in producer and consumer makes the certainty of his future well-being depend on two things only, — the stability of his own desires and capacities and the uniformity of nature. When he produces for exchange, however, the vast uncertainty opens before him of the instability of the desires and efforts of other men, affecting both the demand for his products and the supply of the products he wants. Credit is the force which enables men to overcome this uncertainty, and grasp that unmeasured gain which comes from specialized and organized industry.

When our farmer thus gives up the power of valuing directly his own product, the adjustment of motive between cost and utility of products is no longer made in the same mind, but is left to the vague action of many minds in the "market." In the farmer's mind the surplus wheat loses its character of an economic good, and takes on the character of a credit instrument. In an economic sense, he becomes the *creditor* of various other people, whom we call "society" for short. If his wheat is destroyed by some accident, his claim is gone. If society changes its mind and does not want so much wheat this year as last, his claim is impaired. He accepts the ordinary demand of society for wheat as a tacit promise of society to take his wheat and give him in return the goods he wants. It is only because he finds in the long run that the credit thus extended to society is safe, and that society redeems its tacit pledges, that he continues to devote more and more of his energy to wheat-growing. This illustrates what I have called customary credit.

III. In the third stage regular markets for wheat and other goods have become established, and money is in common use. Our farmer sells his surplus wheat for money, and afterwards buys the desired goods with money. There is no essential difference between this case and the last, as before seen. He simply surrenders his specific

credit instrument, surplus wheat, and receives another credit instrument, gold coin. Physically, gold coin is imperishable: wheat is not. This is an advantage. Psychically, gold coin is a claim upon all men. No one in the market will refuse it. Money is generic, not specific. This is another advantage. The bullion, as collateral, is much better than wheat. This is still another advantage. But the gold coin remains credit still.

IV. In the fourth stage credit partly takes on a new phase. Our farmer has found a net gain in each extension of his wheat-growing. Each year he has enlarged his output by investing his gains in his business. He has rented more wheat land, bought more horses and better machinery, and hired more labor. He now believes that, if he had more capital, so as to enlarge his operations yet farther, he would still gain. His neighbor, also a wheat-grower, now getting old and wishing to retire partially from active business, lends him \$1,000 worth of capital in return for our farmer's note, payable in a year. There is, furthermore, at the nearest village a grain-dealer who also deals in agricultural supplies. Our farmer, from time to time, buys from him various articles needed "on credit," and brings him wheat from time to time, for which he receives credit. He has now become a formal debtor as well as a formal creditor. He has given express, definite, legally enforceable promises to other men to pay them at a future time certain amounts of wheat or money. These credits, book credits or promissory notes, I have called "formal" credits for reasons already given.

The economic significance of the credits which our farmer has received is that he is enabled to extend his profitable operations beyond the point possible if he had only his own capital. His proved ability as a producer enables him to obtain "credit" from other men having capital which they would rather lend than use themselves. So long as he can manage successfully a larger capital in

his business he will seek to borrow. He will be able to borrow so long as he proves his ability to pay more for the use of capital than its owners will gain by using it themselves. Thus the "credit" which will be given to our farmer will depend upon his industrial worth as a manager of capital, and thus the capital of society tends to get into the hands of the competent managers.

It is now readily seen that an economic distinction must be made between two classes of credits. The credit which the farmer gives to the consumer of wheat, which I have called "customary," has some economic characteristics different from the credit which the farmer gets from his neighbor, which I have called "formal." The legal distinction does not coincide, however, with the economic. The credit obtained by the consumer of wheat—i.e., by society as bread-eaters—does not remain entirely customary. The baker receives formal credit for his orders upon the flour-dealer, the flour-dealer formal credit for his orders upon the miller, the miller for his orders upon the country grain-dealer, and the country grain-dealer for his orders upon the farmer. Always, however, in whatever manner industry is organized, there remains about the retail dealers the broad fringe of customary credit extended by these dealers to their customers; namely, society as ultimate consumers. This customary credit always remains as the basis of all other forms of credit and as the foundation of specialized production. As this force is transmitted from the final consumers of products into the various special channels of trade, it takes on more and more a formal character with the better organization of the "market." It remains, however, in essence, the same economic force. To it is due *external* specialization in production; that is, the separation in personality between the producer and consumer of specific goods,—in other words, the separation of industry into distinct trades for the production of each finished good. From an economic standpoint it may be called *consumer's credit*.

On the other hand, the credit which the farmer gets from his neighbor, while it is almost invariably a formal credit, has yet its economic significance in the fact that it is a transaction between two producers of the same ultimate product. All the producers of wheat in the same market, having extended their credit to the ultimate consumers of wheat, the bread-eaters, now bargain among themselves as to how much of the productive industry necessary to furnish the bread each shall undertake. The farmer's aging neighbor gives him a part of his capital, other men give him days' labor, other men agricultural machinery, other men various other things necessary; and, in return, the farmer gives them promises to pay when he shall have been paid by the bread-eaters.

Our farmer, the capitalist, the land-owner, and the wage-worker, and corresponding functionaries in every trade associated with wheat-growing in the production of bread, become differentiated. The farmer receives credit from these various functionaries. To this form of credit is due *internal* specialization in production; *i.e.*, specialization of functions within the separate trades. They usually take the form of credit extended by the other classes to the "undertaker." They may well be called "undertaker's credits." They form the larger part of what is commonly called credit. Essentially, however, they are only a secondary form of credit, within the larger circle of consumer's credit. In both the same psychological factor is involved,—reliance of person on person for definite results of future activity, the giving up of the specific direction of one's productive resources for a time, in reliance upon a promise of future reward. The formal legal character which usually attaches to the undertaker's credit is an incident of structural growth, not an essential difference; for it is also quite common in consumer's credits. They both require the presence of capital as the vehicle of their activity; *i.e.*, indirect production for the supply of

future wants. They both tend towards the same economic end,—of bringing the various productive processes under the management of the most efficient intelligence and skill, or, in other words, of putting each human worker into the place in the industrial organization where he can be most efficient. Through consumer's credit the worker can take up that trade in which he is most apt; and through undertaker's credit he comes to take that place in any trade or group of trades which his native and acquired skill fit him to hold. Credits of both kinds are alike, also, in their mechanism, their structural organization. This will appear to better advantage after bringing our farmer into the fifth stage of industrial development.

V. This is the most highly developed stage of industry, with credit organized in banks and banking systems. There is no need to describe the familiar processes of banking. In the further specialization of industry due to credit a special class of dealers in credit instruments themselves has grown up. They deal in all formal credits, whether consumer's or undertaker's. In fact, undertaker's credits are all only a form of the general force called consumer's credit, looked at from the other side. Our farmer sells wheat worth \$500 to the miller, who makes it into flour and sells it to the hotel-keeper, who makes it into bread and pastry and feeds it to his guests. The farmer buys a threshing-machine from the manufacturers and pays with his check. The other transactions are paid by promissory notes which are discounted at the same bank and their amounts credited to the depositors. The notes are paid by mere transfers of credits on the banker's books, leaving a balance, perhaps, to some one's credit, which we say is paid in "money." In effect, our farmer has exchanged his wheat, to him a credit instrument, for the miller's note, another credit instrument. This he has exchanged for bank credit, and this he has surrendered for the commodity he wished. The wheat, meantime, re-

mains a credit instrument until it reaches the ultimate consumers. It has only an anticipated, a credit value. In all trade the process remains essentially the same. In an earlier time the blacksmith's customary consumption of wheat and the farmer's customary consumption of ploughs caused the farmer to give credit to the blacksmith by putting labor into wheat, while the blacksmith in his turn gave credit to the farmer by putting his labor in a plough. To each as producer the article for exchange remained a credit instrument. When exchanged, these credits cancelled each other, a balance possibly remaining due from the blacksmith which was settled by his giving a hoe "to boot." When money is in use, the value of each good is estimated in money and the balance paid in money. When the general store-keeper appears, these credit instruments are bartered through his agency, mutual credits are cancelled upon his books, balances are paid in money. Under the most highly organized system of banking the transaction does not differ in principle, as we have seen. It simply increases in complexity. Credits are mutually cancelled in the banks, the general book-keepers of industry, and balances paid in money.

Nor must it be forgotten that, while legally money is the commodity of ultimate payment, economically it is a form of credit. It is the widest form of credit, the generic credit instrument. Economically, ultimate payment only is reached when the consumer receives the desired good. Goods are unfinished until then. The process of production is incomplete until then. Anticipated values are unrealized until then. Until then goods pass through producer's hands as credit instruments, the value of which to them is objective, and resides in the minds of others,—credits which are ultimately to be paid in goods desired for consumption.

The money which circulates at any time is, therefore, only evidence that at that time in the general settlement

of accounts a balance is due. Money is thus the clearing-house certificate of general industry, showing the balances after barter transactions. Those who hold it are creditors of "society." It is credit in its widest form, because it can be directly presented to any member of society. No other transaction in credit need intervene between its possession and that of the desired good, even in the most complex organization of industry. By its marginal equivalence of utility in its commodity and money uses, money unites subjective and objective values, it enables each man to understand the valuations of other men. It conventionalizes value-thought between producers and consumers. Credits are titles to future value. Money is not only the generic finished good, and therefore the universal form of present value, but it is also the generic credit or universal title to future values. All other commodities are specific in their uses. All other credits are specific as to times of payment and personality of debtor. It is rightly regarded, therefore, as the natural form of ultimate payment in the settlement of all balances in transactions involving both customary credits and formal credits.

An interesting application of these principles, would it not unduly lengthen this paper, would be to point out the essential similarity between industrial crises and monetary panics. The former come from a derangement of customary credits, the latter from a derangement of formal credits. In one sense, therefore, the latter are economically unnecessary, the creation of law.

In case of industrial crises, producers issue too many credits; *i.e.*, produce more goods of certain kinds than are really demanded. Misplaced or excessive credit is the cause. The same is true in monetary panics; but, in the latter case, an unnecessary scarcity of money of ultimate payment is created. The whole system of representative money and credit, as organized in banking institutions, is

an elaborate realization of the idea that only standard money pays balances. What is needed at such times is some process by which goods in the hands of debtor producers, their unmatured credits, may be got into the hands of ultimate consumers; and thus that latent value be developed, that fund of consumer's subjective value be *objectivized*, and the debtor thus furnished with other means of ultimate payment.

A further word should be said about the special importance of undertaker's credits. To some extent every man is his own undertaker. In isolated production, were there such, a man would undertake to direct his work so as to get a living. He would perform every industrial function himself. He might even accumulate some capital. The scope of his undertaking, however, becomes progressively narrowed. First, it is restricted to a few products, then to one, then, perhaps, to some one operation. It is the function of the undertaker so to shape the productive processes that goods produced shall be the goods wanted. Most men find out that they are not fitted to do this in a large way. If they have no capital, they work for wages. If they have capital, they loan it to other men. The tendency is to develop a separate class of undertakers, who direct in general the productive operations. Credit is the means of making capital most available in specialized industry. It brings capital into the hands of the undertakers. The office of credit is to make the most effective combination of personal capacity and capital. As we have seen, the undertaker can get credit according to his ability to manage capital. *His credit is the present value of his future industrial worth.* If undertakers fail, they lose their credit. This is true of individual cases and of the whole social field of industry as well. Loaned capital must be repaid; *i.e.*, total capital must be maintained. An undertaker can get all the capital he can profitably make use of, which means that in a given in-

dustrial field undertakers can get loans of capital in some proportion to their ability as undertakers. Credit instruments embody the future industrial capacity of persons. The prime function of credit is thus to bring into activity the personal productive power of individuals, which is sometimes spoken of as "personal capital." Strictly speaking, reliance placed on "collateral" is not credit. The essence of credit is reliance on a person. Consumer's credits determine what relative amounts of general productive force shall be expended in the production of the various goods. Undertaker's credits determine the apportionment of capital to personal capacity in any occupation. Through its operation directive ability tends to get control of capital and labor in quantities suited to produce the best results. Costs of production are reduced, more goods and new goods are produced, and society gains in both ways. There is more reasonable consumption, more efficient production.

Credit, to attain its highest usefulness, must be capable of easy generalization. This is accomplished mainly in two ways: (1) by expressing credits in terms of money, which is generic; and (2) by such an organization of credit instruments and credit institutions that the owner of personal industrial capacity may readily exchange his individual credit, a purely specific thing, for wider credits. The banks do this, and the great banking systems which have grown up in the present century carry the process still further. Our national banking system realizes in a marked degree the idea of universalizing individual credit. A man getting his note discounted by a national bank has at his disposal a credit which is everywhere accepted, and this, too, with a remarkable economy of gold money as a reserve. From this point of view it would be a long step backward to allow note-issues by State banks. It would be retracing some steps in that remarkable evolution of the mechanism of credit which is shown

in the consolidation of banking institutions in each of the great countries that are industrially the most civilized.

To recapitulate certain points. 1. Credit, as *legally* defined, does not include all *economic* credit. The latter rests on the psychological trait of faith in the uniformity and reasonableness of other men's voluntary acts. It embraces every surrender for a time of one's productive resources to another person, in reliance upon his promise of future reward. The promise may be only *economically* enforceable.

2. The office of credit is to create specialization in industry. It separates the personality of consumer and producer of specific goods. Specialization of trades results from "consumer's credits," specialization of industrial function from "undertaker's credits."

3. The mechanism of credit embraces the whole fund of objective value residing in goods for exchange. Credit instruments are: (a) Goods for sale in producer's hands as credits. They are cancelled by coming into the hands of consumers. (b) Money, which is universally accepted as "boot" in the settlement of barter balances, because it represents generically the fund of value, and thus measures specific values and gives command over all specific values. (c) "Paper" credits of all kinds, including "paper money," which simply evidence ownership in value. They may be titles to specific goods or to money, the generic good.

4. Credit is organized in markets. Exchange remains essentially the same process in primitive markets and in the modern clearing-house. In both, credit instruments are cancelled by mutual transfers; and balances are paid in money, the credit universally acceptable.

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THE UNEMPLOYED IN AMERICAN CITIES.

THE present gravity of the problem presented to American communities by the temporary inability of great numbers of the population to obtain employment may serve as an excuse for presenting in somewhat crude form the results of an inquiry into the number and condition of the unemployed in the principal cities of the United States, and the measures adopted by the municipalities, by organizations and individuals, for providing temporary employment or affording other relief.¹

The data which are here presented are mainly derived from some three hundred replies received to a circular of inquiry sent to public officials and other citizens of all cities of over twenty thousand inhabitants, and of many smaller places. Most of the replies were prepared during the second or third week in November. The data therein given have been supplemented as far as possible by items that have appeared in newspapers down to the 15th of December. The date of all information received later than the 25th of November has been indicated in the foot-notes. Although the present tense is ordinarily used, for the sake of brevity, it is to be understood as an "historical present," conveying information already some weeks old. No doubt, in many cities, new conditions and movements have developed which have not been called to the writer's attention.

MASSACHUSETTS.

The number of the unemployed in Boston is uncertain. Mr. W. A. Clark and R. B. Young, of the Andover House, have learned, by "consulting the highest authorities in the different trades," that, out of 26,645 laborers in thirty-seven diverse crafts, 9,840, or 37 per cent., are out of work. Upon

¹ The writer wishes to express his gratitude to each of the many correspondents who have so generously furnished him the information upon which this paper is based.

the basis of these returns and figures furnished by the Chief of the Massachusetts Bureau of Labor Statistics, they make the following estimates:—

<i>Class.</i>	<i>Total number in class.</i>	<i>Estimated number unemployed.</i>
Manufacturing and Laboring,	78,765	29,143
Trade and Domestic Service,	77,288	7,728
Personal Service and Transportation, .	30,380	1,519
Totals,	186,433	38,390

The Associated Charities and eighteen other charitable societies issued an appeal to the public in November, urging the charitably disposed "to join in personal visiting and in the most generous contributions possible to the existing charities," and rather deprecating novel methods of relief.¹ The public agencies of relief, the various charitable societies, benevolent orders, churches, and labor unions have been unusually active in rendering assistance in their special ways, and several "mushroom" and disconnected schemes of assistance have been put into operation from among the many that have been proposed.²

A committee of citizens appointed by the mayor began the registration of applicants for employment December 20.³ Up to December 24 the number of men registered was 2,271, and the number of women registered was 44.⁴ \$11,698.45 had been subscribed toward the relief fund.⁵ The committee has arranged to employ 400 men at once on sewers, in two gangs, each man working three days a week and receiving \$1.50 a day.⁶ Further work will be provided in cleaning the streets. Sewing and similar work have been provided for all women who have applied.⁷ Aside from this emergency work, the city government has provided for the pushing forward of all public work for which funds are available, and is employing a considerably larger force of men than is usual at this time

¹ Circular, *How to relieve Distress among the Poor this Winter*.

² *Boston Herald*, December 17.

³ *Ibid.*, December 21.

⁴ *Globe*, December 25.

⁵ *Ibid.*

⁶ *Journal*, December 27; *Globe*, December 24, for plan.

⁷ *Journal*, December 27.

of year.¹ The common council has passed an order appropriating \$500,000 for the construction of streets and sewers, with the object of furnishing employment.²

The plan of relief adopted in Lynn is of peculiar interest. The Lynn Citizens' Labor Bureau has supplemented the existing charities by offering a limited amount of work on the streets to "actual citizens of Lynn in extreme need, and having no other friends or resources,—these facts ascertained by thorough domiciliary investigation in every case."³ Men have been paid \$1.00 for each half-day's labor; and, except in cases of extreme need, the share of each laborer has been three half-days of labor and \$3.00 each week.

The work was begun October 2, and the results reached November 10 were:—

Amount of citizens' subscription to date,	\$5,425
Total applications for work,	759
Applications postponed, because—	
Unmarried men without dependants,	222
Work secured elsewhere,	45
With property and not in absolute need,	40
Non-resident and other reasons,	40
Domiciliary investigations made,	495
Placed upon the working list,	372
Different men actually employed to date,	295
Money paid to them,	\$2,914

The expedient seems to have been a most judicious and effective measure of relief. The committee report:—

So far the system has prevented absolute destitution, the influx of the needy from other cities, the storming of the city treasury, much misapplication of charity, and much loss of self-respect. The thorough investigation has been of the highest value, locating the quarters where the pinch of need is greatest, forestalling the astonishing activity and impudence of the charity impostors, bringing to the notice of the benevolent some cases of pecuniary hardship which a little good management re-

¹ Mayor Matthews at conference of citizens December 18; *Globe*, December 19. Cf. reports of meetings of aldermen December 18, and of common council December 21, etc.

² *Boston Transcript*, December 22.

³ First Report of Citizens' Committee, published in *Boston Herald* December 11; *Lynn Item*, December 12, etc.

lieves, uncovering many preventable causes of distress, and enabling the relief-giving societies and individuals intelligently and effectively to succor the destitute.¹

In Worcester the highway, sewer, and water departments have been doing much work that would ordinarily have been postponed.² About 500 emergency laborers have been set at work within the past six weeks.³ More work of the same sort is planned, and the estimate of the highway department for next year will be \$250,000.⁴ The number out of work is said to be from 6,000 to 8,000.⁵

Lowell has authorized a loan of \$60,000 for sewer construction;⁶ and, partly as a result of discussion by the Church League Relief Committee and in the newspapers, the force of the public departments has been kept larger than usual at this time of year.⁷ The Central Labor Union is trying to have the contract for a new bridge over the Concord River awarded to local contractors.⁸ A co-operative enterprise to furnish work for unemployed dressmakers is reported to be successful.⁹

Lawrence voted to create a temporary debt of \$50,000 to extend the sewerage system, with the object of furnishing work. Operations have been suspended on account of the cold weather.¹⁰

Brockton appropriated \$5,000 December 14 to employ men in "two gangs, each working four and one-half hours a day."¹¹ There are said to be perhaps 1,000 people out of employment.¹²

Quincy recently appropriated \$60,000 for the extension of the water supply system and \$10,000 for street widening, with

¹ First Report of Citizens' Committee, published in Boston *Herald* December 11. Cf. also Rev. J. H. Van Buren's letter in *Lynn Item*, December 12; Boston *Globe*, December 4, 12, 16; *Transcript*, December 4.

² Mr. Freeman Brown, clerk Overseers of Poor.

³ Worcester *Telegram*, December 11.

⁴ Boston *Globe*, December 16.

⁵ Mr. Freeman Brown.

⁶ Letter from the Mayor.

⁷ Boston *Globe*, December 16.

⁸ Boston *Post*, December 15.

⁹ Boston *Herald*, December 16.

¹⁰ Boston *Globe*, December 16.

¹¹ Brockton *Enterprise*, December 15; Boston *Post*, December 15.

¹² Mayor.

the proviso that "citizens of Quincy having families should have the preference in performing the work."¹

Newton is beginning an extensive system of boulevards, and is ready to put 1,000 men at work in addition to the present force of 600. "In anticipation of the present hard times the city government has placed at the disposal of the chairman of the Highway Committee \$107,500."²

Many cities have adopted the alternative plan of giving assistance instead of employment. In Springfield the Board of Trade has proposed a distribution of bread and coal at wholesale prices, the distribution to be carried on by men now out of employment. A public soup-house is also under consideration.³ In Waltham the balance of the fund raised for the Johnstown sufferers, amounting to \$1,253.92, has been placed at the disposal of the Associated Charities "for the relief of those needing work or assistance in Waltham."⁴ Haverhill has named a Relief Fund Investigating Committee, and has expended thus far \$1,500 of an emergency fund.⁵ Citizens of Fitchburg,⁶ Holyoke,⁷ Somerville,⁸ Marlboro,⁸ Watertown,⁸ and of many other cities and towns, are making special efforts to relieve distress.

CONNECTICUT.

The conditions at Danbury are in this respect unique, and extremely significant: that public employment on a considerable scale is sought not merely to relieve destitution, but to enable the operatives of the hat factories to hold out in their dispute with their former employers. The facts of the situation seem to be these: Late in November the manufacturers issued a circular giving notice that they would soon discharge all their help, but would re-engage them as fast as the condi-

¹ *Boston Herald*, December 12.

² *Boston Globe*, December 16.

³ *Springfield Union*, December 13; *Boston Advertiser*, December 14.

⁴ *Waltham Tribune*, December 11, 12; *Boston Herald*, December 13.

⁵ *Haverhill Gazette*, December 12; *Boston Herald*, December 14; *Boston Globe*, December 16.

⁶ *Boston Globe*, December 16.

⁷ Mayor.

⁸ *Boston Globe*, December 16.

tions of trade warranted, upon a non-union basis.¹ The employees at once prepared to resist this effort to break down their unions; and, as one weapon in the struggle, they circulated a petition for a town meeting to appropriate \$50,000 for aid and temporary employment of such inhabitants of the town as might be in need.² The meeting was held December 7, and \$50,000 was voted with no apparent opposition.³ The victory was, however, only an apparent one; and the voting of the money was nullified by the fact that the selectmen had no funds with which to meet the appropriation, even had they been disposed to do so, and that the tax rate for the coming year had already been fixed at a point which made no provision for any such expenditure.⁴ The whole matter has seemingly been dropped; but the incident is significant in relation to the possibility that labor disputes may become a considerable factor in decisions in regard to undertaking public works.

It is stated that several Connecticut towns are undertaking public works with a view of giving employment.⁵ Such a plan is proposed in New Haven, where there are some 5,000 men unemployed,⁶ and 2,000 more on partial time,⁷ and in New London. In Middletown certain quarries are giving employment only to married men.⁸

RHODE ISLAND.

In Providence the number of unemployed in the city is given as 3,000, besides 6,000⁹ striking operatives in Olneyville and other suburbs.¹⁰ The poor authorities and charitable societies have had unusual calls upon them, and there is said to be much distress.¹¹ Branches of the fuel society have

¹ *Boston Herald*, November 23.

² *Boston Transcript*, December 2.

³ *Boston Globe*, December 8.

⁴ *Boston Transcript*, December 9.

⁵ *Boston Herald*, November 23.

⁶ *Ibid.*

⁷ Hon. I. B. Sargent, mayor.

⁸ *Boston Herald*, December 14.

⁹ 7,000 according to *Boston Globe*, December 3.

¹⁰ Mr. J. L. Pierce, president Board of Trade. The *Boston Transcript* of December 19 states the total at 12,000.

¹¹ *Boston Globe*, December 14.

recently been opened in various parts of the city. The establishment of soup-houses is under consideration. The commissioners are urged to begin work at once upon the new State House to afford employment.¹ The common council have voted to begin work at once upon the extension of the Roger Williams Park, employing men at 75 cents a day.²

In Woonsocket, where there is a considerable number of unemployed, the mayor has urged the anticipating of public works; and \$41,000 has been appropriated for a school building, a reservoir, and other works that would not ordinarily have been undertaken at this time.³ There are more unemployed than usual in Newport.⁴ The number out of work in Pawtucket is said to be less than 1,000.⁵

MAINE.

Maine is, on the whole, fortunate in the present depression. There is a large number of unemployed in Lewiston, Auburn, Saco, and Biddeford, but no considerable number in Portland,⁶ Augusta, or Waterville; and the people of Bangor are said to know of the hard times only by telegraphic communication.⁷ Lumbering and the cutting of ice,⁸ as well as railroad construction,⁹ are helping out the quota of work.

NEW HAMPSHIRE.

In Manchester there were 10,000 idle in August, but nearly all are now at work at least a portion of the time. A loan of \$25,000 was authorized to provide work through the street department.¹⁰ There is a great deal of lack of employment and some destitution in Nashua.¹¹ There are few out of work in Concord.¹²

¹ *Boston Globe*, December 16.

² *Boston Transcript*, December 19.

³ Mayor.

⁴ *Boston Post*, December 14; *Boston Globe*, December 16.

⁵ Mayor.

⁶ Mayor.

⁷ *Boston Globe*, December 16.

⁸ *Ibid.*

⁹ Mayor of Bangor.

¹⁰ Mayor.

¹¹ *Boston Globe*, December 16.

¹² Mayor.

VERMONT.

There is said to be the usual amount of employment in Burlington.¹ Slate quarries have recently shut down in several towns, throwing some 2,500 men out of employment.²

NEW YORK.

Recent estimates of the number of the unemployed in New York City vary from 80,000—as indicated by the partial returns of the health board's census, covering 1,200 of the 38,000 tenement houses³—to 100,000⁴ or even 110,000.⁵ Mr. James B. Reynolds, chairman of a special committee of investigation appointed from the University Settlement, states that there are 80,000 unemployed, and at least an equal number working half-time or less.⁶

Certain labor leaders have stated that perhaps 25 per cent. of the workingmen in the city are unemployed at the present time. The Cigar-makers' International Union, No. 9, is assisting 500 out of its 2,000 members. Between two-thirds and three-quarters of the United Brotherhood of Tailors and something over one-half of the German Waiters' Union are employed. At least 25 per cent. of the organized iron and steel makers are said to be idle.⁷

There has been a marked increase in the demands upon the charitable societies; but, although taxed to the utmost, these societies claim to be satisfying all deserving wants.⁸ They have made an urgent appeal for special funds.⁹ The following table shows the excess of requests for assistance made in

¹ Mayor.

² *Boston Herald*, November 23.

³ *New York World*, December 21.

⁴ Despatch to *Boston Traveller*, December 22; Mr. W. J. Gorsuch, secretary National Provident Union, New York, December 22.

⁵ A newspaper estimate.

⁶ Mr. A. B. Reynolds, December 26.

⁷ *New York Post*, November 25.

⁸ Mr. C. D. Kellogg, general secretary of the Charity Organization Society, in *New York Post*, December 8.

⁹ Despatch to *Boston Globe*, December 22.

recent months at the central office of the Charity Organization Society as compared with the corresponding months a year ago:—

	July	Aug.	Sept.	Oct.	Nov.
1892,	109	78	121	103	193
1893,	146	114	264	236	312
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Excess in 1893, . .	37	67	143	183	119 ¹

The Charity Organization Society has just opened a lodging-house to accommodate 200 men in connection with its wood-yard.² The Industrial Christian Alliance has founded a home where men are given food and lodging in return for work in its broom factory, tailoring-shop, and other industries. There are accommodations for 80 men at a time, and men are allowed to remain five weeks. There are said to be more than ten times as many applicants as can be admitted. The Alliance contemplates a similar home for women, an "industrial farm," a lodging-house, and other features;³ and it has recently provided for furnishing full meals⁴ at the nominal price of five cents, having raised over \$10,000 for this last object.⁵ The newly established Bloomingdale Church Wood-yard gives employment at rates which enable men to earn from \$1.00 a day upwards. "The first week work was given to 218 men, and 100 were turned away."⁶ The St. Andrew's Coffee Stands, the Kimball Mission,⁷ Mr. Nathan Strauss's coal-yards, where coal is sold at almost wholesale rates,⁸ a special store where groceries are sold in a similar way,⁹ are a few among the many agencies that are trying to assist the destitute. The New York *World's* distribution of bread, which was discontinued several weeks ago, is claimed to have amounted to 5,000 loaves a day, or to a total of 250,000 loaves during the two months that it continued.¹⁰

¹ Despatch to Boston *Globe*, December 22.

² The *Outlook*, December 2; New York *Home Journal*, December 6. ³ *Ibid.*

⁴ New York *World*, December 10. ⁵ *Ibid.*, December 22.

⁶ Circular of Bloomingdale Church Wood-yard, October 12.

⁷ New York *World*, November 28. ⁸ *Ibid.*, December 10.

⁹ Boston *Journal*, December 22. ¹⁰ Mr. Kellogg.

A novel and interesting plan designed to afford work "without interfering with those already employed"¹ has been undertaken by the East Side Relief Work Committee. The plan is "to apply the system of extra sweepers—now in use in many up-town streets—to the crowded tenement-house districts," and also to set garment-makers at work upon clothing to be sent to the cyclone sufferers of South Carolina.² This work has been kept within comparatively narrow limits by lack of funds.³ \$1.00 a day is paid to 100 street-sweepers, from 50 to 70 cents to the garment-workers, of whom about 60 have been employed.⁴

Dr. Stanton Coit and Rev. Dr. W. S. Rainsford, who have been leaders in the last-named enterprise, have also provided for a free employment bureau at the rooms of the University Settlement.⁵

A small body of the unemployed themselves held a mass meeting in Union Square November 28, and passed resolutions requesting "employment rather than charity," and asking that the city and State "promote works of public benefit and improvement."⁶

The president of the Brooklyn Bureau of Charities recently stated that, "from applications received at the several headquarters, it was already evident that there would be very many people out of work this winter. The number [apparently of the unemployed] now was more than double what it was a year ago."⁷

The various charitable organizations of the city are to co-operate in providing "ways and means for the relief of the destitute poor of Brooklyn," and a committee has been appointed "to arouse the citizens to a full realization of the situation." It is intended that the movement shall be carried on by "the regularly organized charitable societies rather

¹ Circular of East Side Relief Work Committee; also *New York Tribune*, November 26; *Boston Transcript*, December 4.

² *Ibid.*

³ *Boston Transcript*.

⁴ *New York World*, December 22.

⁵ *New York Sun*, November 29.

⁶ *Ibid.*; *Recorder*, November 29.

⁷ *Brooklyn Eagle*.

than by spasmodic efforts on the part of individuals."¹ No special action has been taken by the municipality,² beyond keeping a full complement of men employed on public works.³

The number of unemployed in Rochester is considerably larger than last year. The only numerical estimate received, 20,000,⁴ seems greatly excessive, especially in view of the statements of other correspondents.⁵ The city happens to be still engaged in the construction of extensive public works, water supply and sewerage systems, bridges and the like, which will give employment to a large number of men throughout the winter.⁶ The Chamber of Commerce is raising funds to assist the destitute.⁷

The secretary of the Buffalo Charity Organization Society writes that "so far the conditions have not seemed to require any special effort on the part of this society or the citizens."⁸ The press reports a considerable amount of destitution. It has been stated that 5,000 Poles in East Buffalo are in "imminent danger of starvation,"⁹ and their fellow-citizens have organized a society for their relief.¹⁰ Bread is being distributed by the postmaster, who chances also to be the proprietor of a bakery.¹¹

There is apparently no extraordinary decrease in employment in Albany,¹² Long Island City,¹³ or Binghamton.¹⁴ The number out of work is given as 800 in Kingston,¹⁵ 200 to 300 in Oswego,¹⁶ 1,000 in Newburg.¹⁷ The unemployed of Utica,

¹ *Brooklyn Eagle*.

² Hon. D. A. Boody, mayor; Brooklyn Bureau of Charities.

³ John S. Adams, Commissioner of City Works.

⁴ Mr. Oscar Craig, president of the State Board of Charities.

⁵ Hon. Richard Curran, mayor; Mr. J. W. Oothout, president of the Society for the Organization of Charity.

⁶ *Ibid.*

⁷ *Rochester Democrat*, December 13.

⁸ Miss Marion I. Moore, assistant secretary of the Charity Organization Society, December 8.

⁹ *Buffalo Enquirer*, December 11; despatch in *Boston Herald*, December 11.

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² Mayor.

¹³ Mayor's secretary, December 5.

¹⁴ Mayor.

¹⁵ Mayor.

¹⁶ Mayor.

¹⁷ City clerk.

on the other hand,—largely operatives in textile industries,—are said to number about 10,000.¹

Albany has added \$10,000 to the usual relief fund,² Syracuse³ and Cohoes⁴ have organized citizens' committees, a loan fund association is proposed in Watertown,⁵ an Industrial Wood-yard has recently been established in Troy.⁶

NEW JERSEY.

The number of unemployed in Jersey City is much larger than usual, but no estimates are given. Many are said to have drifted in from other places. The Newman Industrial Home has issued meal tickets to be given to those asking for food, and is starting a wood-yard and lodging-house.⁷

Only 10,000 of the estimated 50,000 of the laboring population of Newark are, it is stated, employed on full time. It is said that nearly 20,000 have no work at all for the present.⁸ The greatest sufferers are the hatters, tanners, and tailors, many of whom have been idle since early in July.⁹ The Citizens' Aid Committee is registering applications, and has distributed aid to over 700 heads of families.¹⁰ The churches and charitable societies are reported to have assisted 13,000 of the poor.¹¹

In Paterson 50 per cent. of the working people are said to be idle. The city has assisted them by additional employment on streets and sewers and by constructing a new city hall.¹² It is stated that the public funds have become depleted, and the authorities have appealed to citizens for subscriptions.¹³ They are making special efforts to relieve distress.¹⁴

Perhaps 33 per cent. are idle or employed on half time in

¹ Mayor, December 4.

² Mayor.

³ *Syracuse Standard*, December 9.

⁴ Mayor, December 2.

⁵ *Watertown Times*, November 29.

⁶ *Albany Telegram*, December 2.

⁷ Mr. G. W. Parks, general secretary Young Men's Christian Association.

⁸ *Newark Advertiser*, December 5.

⁹ *Ibid.*

¹⁰ *Advertiser*, December 5, 6.

¹¹ *Ibid.*, December 5.

¹² Mayor.

¹³ *Boston Herald*, December 17.

¹⁴ Mayor; *Paterson Call*, November 30.

Trenton.¹ There is said to be great distress.² A Relief Committee has been appointed, and \$10,000 is being raised to relieve destitution.³

The unemployed in Elizabeth are estimated at 2,000. An organization for relief has been formed.⁴ Distress is reported at Camden and funds are to be raised by a committee.⁵

PENNSYLVANIA.

A police census taken in Philadelphia during November showed 46,859 people out of employment who a year ago were earning regular wages.⁶ Probably two-fifths of this number are women. The highest estimate of the total number given now out of work has been 90,000. While this is felt to be an exaggeration, good judges think that the number will reach 75,000 by the first of January.⁷

The work of relief is mainly in the hands of the Citizens' Permanent Relief Committee, which was organized seventeen years ago to deal with any public emergencies that might arise, and has perfected an admirable organization and method of relief. It has thirty-seven auxiliary branches, each with its own subordinate organization, and each responsible for a definite portion of the city. The committee provides food twice a week to those on its lists; it pays rents in advance upon condition that the tenant "continue in possession without distraint during the time for which the rent is paid, any arrear rent to be a question of the future between the tenant and landlord";⁸ and to known and worthy persons, who will not accept charity, it makes loans payable without interest at their convenience. The committee had expended about \$20,000 up to December 21. No special public works have been

¹ Chief of the New Jersey Bureau of Statistics and Industry.

² *Trenton Times*, December 6, 7.

³ *Ibid.*, December 7; *New York Times*, December 13.

⁴ *Mayor*.

⁵ *Boston Herald*, December 14.

⁶ Mr. R. Blankenburg, of the Citizens' Permanent Relief Committee.

⁷ *Ibid.*

⁸ *General Plan of Operation*, Form D.

undertaken to afford employment, but street repairs usually abandoned in cold weather have been continued.¹

No public works have been undertaken or, apparently, contemplated; and the Permanent Relief Committee is looked to for necessary relief.

The number of unemployed in Allegheny is estimated by the mayor at 3,000,² by the chief of the Department of Charities³ at 10,000. A large local employer of labor estimates that there are 16,000 out of work in Pittsburg.⁴ Much distress is reported by the local press in both cities.⁵

The two cities are co-operating, in order to prevent imposition on the part of unworthy applicants for assistance. There have been several conferences of the two mayors and of leading citizens.⁶ Both cities are pushing public works. Allegheny is discussing extensive improvements in the water supply system,⁷ and the city government is preparing to expend considerable amounts through the charity department.⁸ In Pittsburg extensive improvements in the parks are to be brought about through private subscriptions. It is proposed to raise \$100,000 for this work, and the wealthy men of Pittsburg are said to be behind the undertaking.⁹ A census of the unemployed has been instituted under the direction of the Department of Public Safety.¹⁰

5,000 people are said to be out of work in Reading,¹¹ 6,000 in McKeesport,¹² 2,000 in Pottsville.¹³ There are thought to be over 500 more than usual at this season in Erie. In Williamsport one-fifth of the working people are said to be

¹ Rev. Joseph May, pastor First Unitarian Church, December 20.

² Hon. W. M. Kennedy.

³ Mr. Barton Grubbs.

⁴ Mr. Flinn.

⁵ *Pittsburg Post*, November 2, December 6, 7; *Leader*, December 6; *Dispatch*, December 8, 13.

⁶ *Pittsburg Gazette*, December 6; *Dispatch*, December 5, 8.

⁷ *Pittsburg Post*, December 5.

⁸ *Pittsburg Dispatch*, December 13; *Pittsburg Leader*, December 6.

⁹ *Pittsburg Dispatch*, December 8; *Gazette*, December 13; *Boston Post*, December 13; *Boston Herald*, December 13.

¹⁰ *Pittsburg Dispatch*, December 13.

¹¹ Mayor.

¹² Mayor.

¹³ *Industrial World and Iron Worker*, November 16.

unemployed.¹ In McKeesport the Ministers' Relief Committee and the mayor are trying to provide employment and assistance.² In Williamsport public work has apparently been prosecuted in part to afford employment.³ Harrisburg is said to have done something in the way of providing public employment, and such action has been urged by the Board of Trade.⁴ 100 men have been put to work on the streets in Altoona by the aid of funds subscribed for this and other relief, amounting in all to \$5,000 a month for five months.⁵ The city council is expected to appropriate about \$2,000.⁶ The York Benevolent Society has issued a special appeal to aid the "thousand of men out of work" in that city.⁷ Organization to render assistance is being discussed in Wilkinsburg.⁸

MARYLAND.

There may be some 10,000 people out of work in Baltimore.⁹ A great many usually independent families are this year forced to apply for relief.¹⁰ The Charity Organization Society has dreaded a revival of the soup-houses and other well-meant but probably demoralizing methods of relief resorted to last winter;¹¹ and at its instigation many prominent citizens have recently formed a Central Relief Committee, "not with the idea of forming new and unnecessary charitable machinery, but to emphasize, first of all, the necessity of supporting, by increased contributions, the regular charitable agencies of the city, and then to meet the needs of our own citizens and relieve the city of the army of vagrants by providing relief in work."¹² The committee also offers to establish a stone-yard,

¹ City clerk.

² *McKeesport Herald*, December 2.

³ City clerk.

⁴ Report of special committee of Board of Trade, October 17, in local papers.

⁵ *Dispatch*, November 29.

⁶ *Mayor*, December 7.

⁷ *York Dispatch*.

⁸ *Wilkinsburg Independent*, December 6.

⁹ Mr. A. B. Howard, Jr., chief of the Bureau of Industrial Statistics.

¹⁰ Miss M. E. Richmond, general secretary Charity Organization Society, December 5.

¹¹ *Baltimore Charities Record*, October, 1893.

¹² *Baltimore Herald*, December 7; *Sun*, December 7; *American*, December 7.

if the city will purchase the stone. It urges that funds be contributed to enlarge the Friendly Inn and establish branch lodging-houses where the work test shall be used, in order to "relieve the charitable public of a heavy burden, and the workingman of a dangerous rival."¹ At last accounts funds were being contributed for these purposes, in rather small amounts.²

There are few unemployed in Hagerstown. Public works which were begun before the depression will employ a body of men through the winter.³

DISTRICT OF COLUMBIA.

There is every winter a considerable body of destitute people in Washington, composed largely of negroes, many of whom migrate to the city from Maryland and Virginia.⁴ There is said at present to be "greater destitution than ever before known at this time of year, there being a vast army of unemployed, and men pleading for food who have never before been compelled to seek aid."⁵ This is largely owing to the scarcity of work during the summer, which was so marked that even then "there were many applications for assistance, chiefly for money for rents."⁶

Nothing unusual has as yet been done to relieve distress. Washington has six temporary homes, which give some 25,000 free "lodgings" in the course of a year,⁷ and a new municipal lodging-house, to which Congress appropriates some \$6,000.⁸ The total appropriation for charities is \$14,000.⁹ There is an Associated Charities organization, and the usual private charitable agencies.

There has been some discussion of special organization and effort; and Rev. Dr. Sunderland has suggested a mass meeting of charity workers and leading citizens, to take measures for

¹ Baltimore *Herald*, December 7; *Sun*, December 7; *American*, December 7.

² Baltimore *World*, December 12.

³ Mayor.

⁴ Major Moore, in Washington *Star*, December 6.

⁵ Washington *Star*, November 30.

⁶ *Ibid.*, December 6.

⁷ *Report of Superintendent of Charities of District of Columbia, 1892*, p. 44.

⁸ *Ibid.*, p. 46.

⁹ Washington *Star*, December 6.

providing and disbursing a fund adequate to the emergency.¹

The commissioners of the District have a plan on foot to render \$53,000 of the appropriations for highways immediately available, with a view to pushing the work and giving employment. The commissioners state that this amount "can be advantageously as well as humanely expended during this winter. Its immediate availability would provide employment to many men who would otherwise be forced to idleness, and in some cases doubtless become objects of public charity."² This project may very possibly be nipped in the bud by the withholding of the required Congressional assent.³

VIRGINIA.

There are more unemployed in Richmond than in normal years, particularly in the iron industries.⁴ The city has appropriated \$2,000 for the purchase of coal for outdoor relief.⁵ It is presumed that there may be 1,000 out of work in Norfolk.

In Lynchburg there are stated to be hundreds of men who cannot get work.⁶ A meeting of citizens called by the mayor has requested the city government to institute public improvements.⁷ The city council of Petersburg has recently voted \$1,500 for food and fuel for the poor,⁸ and the Citizen's Relief Committee has recommended the establishment of one or more soup-houses.⁹

WEST VIRGINIA.

There are over 3,000 people out of work in Wheeling, largely in the iron and glass industries. A considerable part

¹ *Washington Post*, December 1.

² *Ibid.*, December 12.

³ *Cf. Washington Star*, December 4; *Post*, December 9, 12.

⁴ Mayor, December 6.

⁵ *Richmond Dispatch*, December 5.

⁶ Mayor's address, in *Lynchburg News*, December 8; *Advance*, December 1, 6.

⁷ *Lynchburg News*, December 12; *Advance*, December 12.

⁸ *Petersburg Index Appeal*, December 2.

⁹ *Ibid.*, December 5.

of the idleness is the result of labor difficulties.¹ Soup-houses are under consideration.

OHIO.

A police census of Cincinnati, taken in October, by direction of the mayor, shows the following results:—

Total number of unemployed workmen in the city of Cincinnati,	5,149.
“ “ “ members of families,	16,296.
“ “ “ “ “ who are now employed,	1,075.
“ “ “ unemployed on one-half time,	424.
“ “ “ “ “ one-third time,	109.
“ “ belonging to building associations,	373.
“ value of property of unemployed as represented by census,	\$321,- 130.00. ²

As compared with a year ago the numbers of different classes employed are given as follows:—

	Men.	Boys.	Women.	Girls.	Totals.
Total number employed, 1892,	54,892	6,514	8,783	4,815	75,004
“ “ “ 1893,	49,041	6,250	8,290	4,403	67,984
Decrease, 1893,	5,851	262	493	412	7,020 ³

The methods of relief adopted furnish an example of co-operative action on the part of public authorities, charitable organizations, churches, and the like.⁴ The city appropriated \$30,000 to the Park Board, which is being expended in improvements that under ordinary conditions would have been delayed.”⁵ This measure met with some opposition, and caused the resignation of one member of the Park Commissioners.⁶ The Associated Charities made vigorous appeals for unity and organization of effort; and, although they met with opposition, the work has been organized under a committee which has the co-operation of the mayor, the Chamber of Commerce, and most of the churches, and which employs

¹ Mayor; New York *Tribune*, December 3; Boston *Herald*, November 23.

² Hon. J. B. Mosby, Mayor.

³ *Ibid.*

⁴ Mr. F. W. Ayres, general secretary of the Associated Charities.

⁵ Hon. J. B. Mosby, Mr. G. T. Thayer.

⁶ Mr. G. T. Thayer.

the machinery of the Associated Charities. Up to October 14 this committee had received \$3,191.68, and expended \$1,981.38, over \$1,800 of which was given out in return for work in the labor yard.¹ Miscellaneous and sporadic methods of relief have been deprecated and held in check.²

The number unemployed in Cleveland is said by the president of the Chamber of Commerce not to exceed 8,000.³ A more recent estimate by the secretary of the Central Labor Union is from 20,000 to 25,000.⁴ The city has as yet undertaken no special public works; but the work already in progress has been pushed to the limit of the funds available,⁵ and extensive street and sewer improvements are said to await only the assent of the State legislature.⁶ There is a good deal of destitution reported.⁷ The charitable societies are working in co-operation, largely through the Bethel Association. The work test is applied as far as the amount of work that can be found allows.⁸

Columbus is said to have 4,000 people unemployed. The city has increased public work; and a Public Relief Committee has been organized,⁹ with auxiliary committees.¹⁰ The local Trades Assembly has protested that it has been ignored in the appointment of the committee.¹¹

The Associated Charities in Toledo have registered over 700 applicants for work in two days.¹² There are said to be 1,000 unemployed in Dayton,—a great diminution from the number out of work in the summer. The city has returned to the practice of sweeping the streets by hand.¹³ In Zanesville, where perhaps 1,000 are out of employment,¹⁴ and in Hamil-

¹ October Circular of Information of Associated Charities.

² Mr. Ayres. Cf. Reports of Evangelical Alliance Committee, October 23, of Relief Committee, October 5, and Circulars of Associated Charities.

³ Mr. H. R. Groff, president Chamber of Commerce.

⁴ Mr. Isaac Cowen, secretary Central Labor Union, December 18.

⁵ Mr. J. Hossach, mayor's secretary.

⁶ Mr. Groff.

⁷ *Cleveland World*, December 1, 8; *Plain Dealer*, December 6, 11.

⁸ *World*, November 29, December 10.

⁹ Mayor; local newspaper.

¹⁰ *Columbus Dispatch*, November 28.

¹¹ *Ibid.*

¹² *Toledo Blade*, November 28, 29.

¹³ Mayor's clerk.

¹⁴ Mayor.

ton, citizens' committees are raising funds.¹ Unusual dearth of employment is reported from Youngstown,² Springfield,³ Canton,⁴ Akron,⁵ and Ironton.⁶

INDIANA.

It is estimated that the industrial depression has thrown out of work between 3,000 and 4,000 persons in Indianapolis, a large number of whom have been without work since early in the summer.⁷ There are said to be altogether nearly 5,000 unemployed in the city. Probably not over 1,000 are wholly without resources; but the number of dependants is increasing, and it is anticipated that there will be necessity for much relief during the winter.⁸

There were meetings of the unemployed during November with a view to call attention to their condition, but these have been abandoned since agencies of relief have been developed.

The plans adopted are the result of wise co-operation and united action. The city has ordered a considerable amount of public improvement which would not otherwise have been undertaken at this time.⁹ Little of this public employment, however, has as yet been made available.¹⁰

The main part of the work of relief is under the control of the influential Commercial Club, acting with the co-operation of the mayor, the Board of Trade, and the Charity Organization. Its carefully elaborated plan of activity contemplates (1) the registration of the unemployed, (2) efforts to secure temporary employment through public contracts and such work as can be provided by citizens, (3) leniency toward worthy people in regard to rent and the like, (4) protection of resident workingmen from an influx of outsiders, (5) the establishment, if it becomes necessary, of a place where sub-

¹ *Cincinnati Commercial Gazette*, November 28.

² *Alliance Leader*, November 23; *Youngstown Telegram*, December 5, 7.

³ *New York Times*, December 9.

⁴ Mayor.

⁵ *Akron Beacon*, December 7.

⁶ *Ironton Register*, November 30.

⁷ Mr. William Fortune, of the Commercial Club Relief Committee.

⁸ Mr. Fortune.

⁹ Mr. J. W. Smith, secretary of the Board of Trade.

¹⁰ Mr. Fortune.

stantial food can be bought at a nominal price, (6) improved arrangements for medical attention to the sick poor.¹

Registration on a systematic plan² was begun about the middle of November, and some 1,200 applications for work were registered in the following three weeks. Temporary employment was provided by citizens and private contractors for about one-fifth of the applicants. An "ample supply of food" is sent each week to dependent families, at a cost of about \$1 a week for a family of four. The work is affirmed to be conducted "in such a way that no person residing in Indianapolis need suffer for food."³ At the same time the committee is prepared to deal vigorously with tramps⁴ and impostors, and no abnormal influx seems to have been brought about.⁵ The most noticeable feature in the measures adopted is the attempt to prevent by co-operation any duplication of assistance, imposition, and "an untimely exhaustion of the charitable forces which it is necessary to conserve in every way possible, to enable the great burden to be borne throughout the time of need."⁶

It is thought that perhaps 2,200 may be out of employment in Terre Haute.⁷ A mass meeting was held November 26 to raise funds to relieve distress.⁸ The street railway employees have circulated a paper asking that a portion of each man's wages be given for the relief of the destitute. The Charity Society is distributing bread.⁹ In Vincennes there are many needy persons, and the Associated Charities will probably be revived.¹⁰ Converse and other towns are suffering to some extent.¹¹ In Brazil over 200 families are in want, and a Relief Committee has been formed.¹²

¹ Report of Relief Committee to Board of Directors.

² Cf. forms used for "applicant's register."

³ Mr. Fortune.

⁴ Indianapolis *Sentinel*, November 29.

⁵ Mr. T. A. Hildreth, general secretary Young Men's Christian Association; Mr. T. F. Colbert, superintendent of police.

⁶ Mr. Fortune.

⁷ Mayor.

⁸ New York *Tribune*, November 28.

⁹ Terre Haute *Express*, November 30.

¹⁰ Vincennes *Sun*, December 2.

¹¹ Converse *Journal*.

¹² Chicago *Inter-Ocean*, December 10; New York *Tribune*, December 2.

ILLINOIS.

The extraordinary local conditions make the experience of Chicago in dealing with the unemployed during the last six months the most noteworthy instance in the recent development of the problem in American cities. During the preparation of the Exposition a great influx of working people was attracted by high current wages and by the prospect of employment. The extraordinary chances of living upon their own wits and other people's resources doubtless attracted a great throng of professional idlers, adventurers, and semi-criminals of all sorts and degrees.

Then came the panic, depression, and consequent shut-downs of the summer. The number discharged is, of course, very uncertain. The Statistician of Factory Inspection estimates it at 100,000.¹ Rev. James G. Inglis, the secretary of the Ministers' Relief Committee, gave the same estimate in an address delivered early in September. A police census, taken during the third week in September, when the revival of business had considerably improved the conditions, and embracing 2,200 establishments, mainly large factories and wholesale stores and lumber yards, gave the following result: ordinarily employed, 186,000; employed at said date, 111,000; unemployed at said date, 75,000; per cent. of unemployed, 40.3.² The same percentage applied to the 450,000³ said to have been employed before the depression in manufacturing, building, transportation, wholesale trade, commercial and financial undertakings, etc., would indicate a temporary idleness of some 180,000 persons. A large reduction ought to be made for the less percentage of idleness among employees in offices, hotels, and so on. On the other hand, the amount of enforced idleness in some trades may perhaps have been correspondingly greater. Thus the United Carpenters' Council claims that in September only 20 per cent. of the 12,000 members were at work.⁴ Mayor Harrison is reported to have put the number of the unemployed at 200,000.⁵

¹ Letter from Mr. Joseph Greunhut, Statistician of Factory Inspection.

² Statistician of Factory Inspection.

³ *Ibid.*

⁴ Mr. Nagle, secretary of the Master Carpenters' and Builders' Association.

⁵ Secretary Children's Aid Society.

The idle men congregated day by day around the raised statue of Columbus in the Lake Front Park, discussing the situation in groups or listening to such speakers as cared to address them.¹ During the last week in August these meetings assumed considerable importance in the public eye. At first orderly enough, they developed on several days into incipient riots, and had to be forcibly suppressed by the police,² with some use of clubs, but without any very serious consequences. There were rumors in the papers of attempts on the part of the crowd to loot the great store of Siegel, Cooper & Co. and of the assembling of desperate men with concealed weapons, which seem to have had little foundation. On one or two days the police force made a somewhat formidable display of its power. The crowd was generally composed of the rougher elements of the population, and might perhaps have developed riotous proclivities if not held in check.

The demonstrations culminated in a meeting of a very different character, held August 30, under the auspices of the United Carpenters' Council and other labor unions, with the consent of the mayor, and addressed by Mr. Henry George, President Samuel Gompers, Bishop Fallows, and perhaps twenty other speakers on as many aspects of the labor problem. Although over 10,000 men were grouped about the speakers' stands, there was no sign of disorder.³

The object of this great mass meeting was to compel the citizens of Chicago to recognize the great number of the unemployed. In this it was, apparently, successful. At the suggestion of a conference of citizens⁴ the mayor had already appointed a large Labor and Temporary Relief Committee; and an Executive Finance Committee of fifteen—a sort of inner circle of the large labor committee—was organized on the day after the meeting of the unemployed.⁵ This last com-

¹ Various Chicago daily papers.

² Mr. M. Brennan, general superintendent of police. See also *Daily News*, August 28, 29; *Herald*, September 2; *Post*, August 28; *Tribune*, August 31; *Record*, August 31, etc.

³ *Chicago Tribune*, August 31; *Record*, August 31.

⁴ Mayor Harrison's letter, published in *Chicago News*, August 29. ⁵ *Ibid.*

mittee secured the employment of 1,400 men on the drainage canal by the co-operation of the drainage board and the contractors.¹ Over five-sixths of this number remained at this work, at any rate, through September.² The committee also induced several large manufacturers to start up, "mainly to give employment to their own unemployed."³ Further, it employed some 2,000 men, at \$1.00 a day, in grading and cleaning the streets.⁴ These were selected from about 3,000 men registered by the committee: only resident citizens, and, in general, only men with families dependent upon them, were given this work.⁵ The committee ran temporarily into debt about \$18,000.⁶ Its total expenditures amounted to \$25,265.42, the total receipts to \$25,640.83.⁷ The committee had made a vigorous call for \$300,000 "to meet the present emergency,"⁸ but without success. The emergency work could not have lasted very long, and the efforts of the committee were probably lessened by the feeling that "the immediate requirement for work of this kind seems to have largely disappeared."⁹ The committee, feeling that it might possibly "be standing in the way of other committees of a similar nature which would be organized for the permanent assistance of the unemployed," resigned December 5.¹⁰

There were many other attempts to relieve the distress, on the part of missions, churches, and individuals. Considerable quantities of bread were distributed by the Chicago *Mail*, and by Mr. Kopperl, Mr. David Kallis, and others, who devoted themselves to the work.¹¹

The conditions apparently improved greatly during the last weeks of the Exposition; but a relapse has followed, and there is seemingly much more real distress than during the summer.

¹ Report No. 1 of Executive Finance Committee to mayor, September 15.

² Report No. 2, September 30.

³ *Ibid.*

⁴ *Ibid.*

⁵ Letter from H. G. Selfridge, chairman of Executive Finance Committee.

⁶ *Ibid.*

⁷ Treasurer's report, in Chicago *Post*, December 4.

⁸ Report No. 2, September 30, and various documents of the committee.

⁹ Letter from chairman, November 14.

¹⁰ Letter of resignation, in Chicago *Post*, December 6.

¹¹ *Daily News*, August 29, September 6; Chicago *Mail*, September 1.

The original Executive Finance Committee, in its letter of resignation, predicts that "there will be a much greater demand during the coming winter for assistance of a similar nature."¹ Colonel W. P. Rend, the chairman of the Chicago Labor and Temporary Relief Committee,—now disbanded,—says: "Silence, inaction, or apathy in the midst of such distress as exists in Chicago at present would be a crime. . . . Famine is in our midst. Chicago is to-day two cities,—a city of plenty and a city of poverty."² The papers are full of accounts of destitution among the school-children,³ the servant-girls,⁴ the homeless people that seek shelter in churches and public buildings, the poorer residents of the north, south, and west sides.⁵

The number now out of employment is stated to be 100,000;⁶ or, again, the number is given as 117,000.⁷ A canvass by the various relief committees is said to have shown 2,000 starving people in the city, and it is estimated that 15,000 or more are without supplies of food or fuel.⁸ While there may be something of exaggeration in these reports,⁹ the situation is, at best, extremely serious.

The citizens of Chicago are grappling with the problem with characteristic energy, and a multitude of plans and measures for relief have been developed. Charity balls, amateur minstrels, theatrical performances,¹⁰ and the like, to raise funds, are announced in the papers.¹¹ Many restaurants and private individuals are giving away food.¹² Several churches have been turned into temporary barracks.¹³ The police stations

¹ *Chicago Post*, December 4; *News*, December 6.

² *Chicago Post*, December 9.

³ *Ibid.*, December 8, 9.

⁴ *Chicago Tribune*.

⁵ *Chicago Times*, December 7; *Record*, December 11.

⁶ Colonel Rend, in *Chicago Post*, December 4; *News*, December 6; despatch to *Boston Journal* and *Boston Post*, December 11, etc.

⁷ *Chicago Times*, December 10.

⁸ *Boston Globe*, December 14.

⁹ *Cf.* *Chicago Herald*, December 10.

¹⁰ Joseph Jefferson gave a performance for this object December 15.

¹¹ *Herald*, December 10; *Inter-Ocean*, December 10.

¹² *Chicago Journal*, December 11; *Chicago Times*, December 6; *Inter-Ocean*, December 10.

¹³ *Inter-Ocean*, December 11; *Chicago Dispatch*, December 8, etc.

are crowded with lodgers,¹ and even the city hall has been pressed into service to furnish shelter for several nights to from 1,000 to 1,500 men.² The city authorities have hired rooms on Wabash Avenue, where homeless men are given comfortably warm quarters; and similar municipal lodging-rooms will probably be provided in two other divisions of the city.³ Ministers and charity workers are organizing, and developing measures of relief in all quarters of the city. An "Immediate Aid Society,"⁴ a "Brotherhood Employment Bureau,"⁵ an "Endeavor" relief headquarters, and several extensive soup-houses are among the agencies already at work. An arrangement has been made whereby the poor are allowed to get loads of wood from the débris of the World's Fair.⁶

Cook County has appropriated \$80,000 to be spent in supplies for the poor during the winter.⁷ Monthly⁸ allowances of coarse food and coal and some clothing are distributed, according to the size of the families applying. The office of the county agent is daily thronged with men and women,—Bohemians, Italians, Poles, Hebrews,⁹ and many other nationalities,—who, in the words of a local newspaper, "trample over one another in a mad endeavor to get bread."¹⁰

Larger and more comprehensive plans of relief are on foot. Mr. William T. Stead, editor of the *Review of Reviews*, has stirred up the Trade and Labor Assembly to appoint committees and to consider a plan of "labor camps," or public shelters, with provision for employment.¹¹ The new Civic Federation—a society for the improvement of municipal conditions, recently organized largely through Mr. Stead's efforts—proposes to take an active part in the work of organizing and furnishing relief.¹² The most important under-

¹ *Inter-Ocean*, December 11; *Chicago Times*, December 11.

² *Inter-Ocean*, December 11.

³ *Chicago Tribune*, December 13.

⁴ *Ibid.*

⁵ *Inter-Ocean, Herald, Record*, November 30.

⁶ *Chicago Mail*, December 1.

⁷ *Chicago Tribune*, December 3.

⁸ *Inter-Ocean*, December 2.

⁹ *Chicago Tribune*, December 3.

¹⁰ *Chicago Post*, December 2.

¹¹ *Chicago Record*, December 4.

¹² *Chicago Times*, December 10.

taking, however, is the determination of the Illinois Conference of Charities and Corrections to raise \$1,000,000 to be distributed through existing charitable societies under the supervision of a committee of one hundred citizens to be appointed for this purpose.¹ The appeal issued states "that there are a sufficient number of organized charities . . . adequate to distribute the charity of the city. These organizations are fully equipped to carry on, at once economically and thoroughly, the great work of distribution."² If this project is carried out, it will furnish a most interesting experiment in the working of organized charity upon a huge scale and under most trying conditions.

These varied measures of relief, both those already in operation and those contemplated, are of course extraordinary expedients to meet extraordinary conditions. Some of them will doubtless bring serious demoralizing consequences in their train. It is admitted that there is much imposition on the part of the lazy and dishonest. Hordes of tramps are said to have been attracted to the city, and the police are planning to meet all incoming trains and send back the wanderers.³ On the other hand, there is no question that large numbers of industrious and ordinarily self-supporting people are in the greatest distress. "Want and starvation," says the appeal of the Conference of Charities, "are at the doors of thousands of the homes of our people. There are not alone those whose vices and thriftlessness have brought them into this lamentable condition; but the vast majority are those who, by reason of the closing of great manufacturing enterprises and workshops, have been thrown out of employment."⁴ The problem for Chicago, as for every great city, is to assist, whether with work or with supplies, the deserving unemployed, who are in most urgent need, and at the same time guard against imposition by the unworthy, as well as against any demoralization by injudicious methods of those whom it is sought to aid. There

¹ Resolutions adopted December 9, *Chicago Times*, December 10; *Inter-Ocean* December 10.

² *Ibid.*

³ Despatch to *Boston Herald*, December 14.

⁴ Appeal of Illinois Conference of Charities, *Chicago Post*, December 10.

are not yet sufficient data¹ even to indicate how wisely and effectively this problem is being met. Amid the diversity of plans and measures, however, two noticeable tendencies have shown themselves. These are, in the first place, efforts toward organization and systematic co-operation among the various agencies. The attempt, secondly, of the early fall to provide work through committees and public agencies has been abandoned; and the method of direct and unrequited relief by the provision of food, clothing, and shelter, with only a nominal requirement of work, has been everywhere substituted.

Quincy reports no unusual number of unemployed, and no lack of opportunities for work;² but its condition is exceptional.

Decatur,³ Danville,⁴ Bloomington,⁵ and Champaign⁶ are experiencing unusual distress and organizing relief measures. The Citizens' Relief Committee of Rockford is establishing a soup-house.⁷ Joliet has about 5,000 out of work,⁸ and Peoria⁹ probably twice the usual number.

MICHIGAN AND WISCONSIN.

The number of the unemployed in Detroit is estimated by the Trades Council at 25,000.¹⁰ Other estimates received by the writer run from 15,000¹¹ to 20,000.¹² The Poor Commissioners are giving assistance to cases found worthy upon detailed investigation by the police, and have established a store where supplies will be distributed.¹³ "The greatest caution

¹ Dr. Hourwich and students of the University of Chicago are collecting statistics in regard to the condition of the poor which promise to be of great value.

² Mayor, December 9.

³ Quincy *Whig*, December 7; Chicago *Record*, December 11.

⁴ Danville *News*, December 4.

⁵ Bloomington *Pantagraph*, December 1.

⁶ Champaign *Gazette*, December 6.

⁷ Chicago *Record*, December 11.

⁸ Mayor.

⁹ Mayor.

¹⁰ As the result of an investigation kindly instituted at the request of the *Quarterly Journal of Economics*, by Mr. Philip A. Loerach, secretary of the council of Trade and Labor Unions, December 18.

¹¹ Mr. N. McPherson, secretary of the Board of Public Works.

¹² Mr. J. F. Martin, superintendent of poor.

¹³ Mr. Loerach.

will," it is affirmed, "be taken to prevent unworthy persons from receiving aid, so that those who are really in need can be better supplied."¹ The commissioners estimate that 10,000 families, or 40,000 persons, will have to be helped.² Their present funds will probably last through January. Some \$25,000 worth of provisions was distributed co-operatively by the Poor Commissioners and Associated Charities on Thanksgiving Day, mainly to people whose cases had been previously investigated.³ The city has pushed public work as much as possible,⁴ and \$100,000 is said to have been appropriated partly for the purpose of providing employment.⁵

Most of the estimates of the number out of work in Milwaukee run from 15,000 to 20,000. One estimate is as low as 10,000.⁶ One reaches 35,000.⁷ The mayor writes that figures obtained from the trades-unions indicate from 12,000 to 15,000.⁸ There has been some slight exodus from the city to the pineries: no considerable influx of population is thought to have occurred.⁹

During the summer there were minor disturbances among unemployed men, and on one occasion several hundred marched to the city hall to demand employment;¹⁰ but there has been no serious trouble.

The suspension of the bank in which the funds of the city and county were largely deposited has precluded any special public employment, but extensive operations already under way have been carried forward.¹¹ Assistance is being given to the needy through the ordinary channels,—the county poor

¹ *Free Press*, December 3.

² *Ibid.*

³ *Ibid.*, November 30.

⁴ Mr. Martin, Mr. McPherson.

⁵ Mr. A. L. Parker. This, however, seems doubtful from Mr. Loerach's statement.

⁶ Mr. J. T. Jansen, chief of police.

⁷ Mr. H. C. Samuels, corresponding secretary of the Typographical Union.

⁸ Hon. John C. Koch, mayor.

⁹ Mr. J. W. La Fleur, editor *Industrial Register*; Mr. H. Furness, secretary of the Iron and Steel Workers' Amalgamated Association; Mr. Samuels; Mr. T. E. Camp, secretary of the Charity Relief Association; Hon. John C. Koch.

¹⁰ Hon. John C. Koch.

¹¹ Hon. J. C. Koch, *Milwaukee Herald*, November 11; Mr. Jansen.

office, the Associated Charities, and other societies.¹ Some specially donated funds are being distributed by the police to meet urgent necessities.²

The greatest distress in the two States has been among the iron miners of the border towns of Ironwood and Bessemer in Michigan and Hurley in Wisconsin. There are reported to have been 20,000 persons reduced to destitution by the long-continued inactivity of the iron mine.³ The more favored citizens of both States have recently given generous assistance to the almost starving people. When Governor Peck, of Wisconsin, arrived in Hurley with a special trainload of provisions, November 26,⁴ the citizens were notified by the ringing of the fire-bells that assistance had come. General Alger headed a similar relief expedition to the Michigan towns.⁵ The miners are reported to be resuming operations.⁶

Muskegon, Michigan, has, perhaps, 1,000 people out of work. It has given extra employment on street improvements.⁷ Saginaw has carried on more paving and sewer work than usual. It is thought that the winter will demand \$10,000 extra expenditure in relieving the poor.⁸

Beloit, Wisconsin, is said to have many unemployed people and a good deal of destitution.⁹ In La Crosse new street railways and public works have afforded considerable employment.¹⁰

MINNESOTA.

The most careful estimate that has been received from Minneapolis places the number of the unemployed at 6,000.¹¹

¹ Hon. J. C. Koch, *Milwaukee Evening Wisconsin*, November 27.

² *Milwaukee Sentinel*, December 4.

³ *Chicago Herald*, December 2; *Boston Herald*, November 17.

⁴ *Minneapolis Tribune*.

⁵ *Detroit Free Press*, December 5; *Chicago Herald*, December 2. Cf. *Milwaukee Journal*, November 27; *Sentinel*, December 1; *Detroit News*, November 28.

⁶ Despatch to *Boston Globe*, December 22.

⁷ Mayor, December 5.

⁸ City clerk.

⁹ *Janesville (Wis.) Gazette*, December 5.

¹⁰ President of the Board of Public Works.

¹¹ Estimate prepared for the *Quarterly Journal of Economics*, by Mr. George D. Holt, secretary of the Associated Charities.

This amounts to only about 3 per cent. of the total population.¹ Other estimates are 5,000 to 7,000² and 10,000 to 15,000.³ Probably 80 per cent.⁴ are fairly to be counted as residents of the city, though some of them are away during portions of year.⁵

The city has undertaken no special measures of relief, beyond an employment bureau improvised in the summer, which sent, perhaps, 1,000 men into the harvest fields of the Dakotas.⁶ The city council refused the request of a citizens' committee to provide employment in opening new streets.⁷ The county has, however, done something in the way of pushing public work.⁸ No other unusual measures of relief appear to have been adopted.

The estimates of the number out of work in St. Paul vary from 2,500⁹ to 4,000 or more. Some 1,800 were registered by the Citizens' Relief Committee from among those who had resided six months in the city, had relatives dependent upon them, and were willing to work for \$1.00 a day.¹⁰ This committee was organized late in September,¹¹ and, with \$14,000 appropriated by the city, had by the middle of November given some employment to 1,749 men upon the roads and parks,¹² amounting in all to about 12,500 days' labor during October and November.¹³ It is stated that the men will be kept at work by private subscriptions until the 1st of January, when large funds will be at the disposal of the city council.¹⁴

¹ 164,738 (1890).

² Mr. Mathias Gross, superintendent of workhouse.

³ Mr. O. T. Erickson, secretary Single Tax League.

⁴ Mr. Holt, Mr. Erickson.

⁵ Mr. Holt.

⁶ Mr. C. L. Snyder, superintendent of the poor; Mr. Holt, Mr. Erickson.

⁷ Mr. William Dye, secretary Trade and Labor Assembly, December 17.

⁸ Mr. Erickson.

⁹ Mr. W. L. Wilson, chairman of the Citizens' Relief Committee.

¹⁰ Mr. Wilson; Mr. H. H. Hart, secretary of the State Board of Corrections and Charities.

¹¹ *St. Paul Globe*, September 26.

¹² Local papers, November 10, 12, October 20, November 19.

¹³ *Pioneer Press*, December 6.

¹⁴ *Ibid.*, December 2, 6.

The following figures as to the nationality and the length of residence in St. Paul of the men employed are of interest:—

American, English, and Scotch, 17 per cent.; German, 25 per cent.; Scandinavian, 19 per cent.; Irish, 16 per cent.; Bohemian, Polish, Hungarian, 14 per cent.; Italian and French, 9 per cent. 71 had lived in St. Paul 6 months to 1 year; 200 had lived in St. Paul 1 to 3 years; 209 had lived in St. Paul 3 to 5 years; 620 had lived in St. Paul 5 to 10 years; 427 had lived in St. Paul 10 to 15 years; 222, length of residence not given.¹

Duluth reports 2,000 idle. The county and city have established a cheap restaurant, where meals can be had at from three to five cents. The county pays \$1.00 a day for chopping wood on its timber lands.²

KENTUCKY.

The number of the unemployed in Louisville is larger than usual, but undetermined;³ and there is an unprecedented amount of destitution.⁴ Nearly all the men in the building trades are said to be idle. The city is asked to parcel out the work of stone-breaking to the unemployed.⁵ The city is distributing 50,000 bushels of coal through the Charity Organization Society.⁶

In Lexington a Union Relief Society, the object of which is "to furnish the necessities of life to the *bona fide* citizens of Lexington and suburbs, and as far as possible to provide work for them,"⁷ was organized December 5.⁸

Covington has appropriated \$20,000 to be used in giving work in quarrying and breaking stone. A Relief Committee has provided food for the needy. There are about 2,000 unemployed.⁹

¹ Local paper, November 19.

² Mayor's secretary.

³ Mr. R. H. Blair, president of the Louisville Charity Organization Society, December 9.

⁴ Dr. Edwin Hawes, of the Charity Organization Society, in *Louisville Courier Journal*, November 30.

⁵ *Ibid.* ⁶ *Courier Journal*, December 6; *Louisville Commercial*, December 7.

⁷ *Lexington Transcript*, December 9.

⁸ *Ibid.*, December 6.

⁹ Mayor.

TENNESSEE.

In Chattanooga, where there are perhaps 300 to 500 out of work, the city has provided for citizens of six months' residence employment on streets and parks at 80 cents per day for men, 40 cents per day for youths, giving men with dependent families four days' work each week, single men two days' work.¹ The plan has proved successful, and will probably be continued through the winter.²

Nashville is said to have about 1,000 unemployed, of whom a considerable proportion are thought to be new-comers. The Citizens' Committee has distributed food, and provided a limited amount of employment.³ Memphis also reports about 1,000 unemployed.⁴ Knoxville has been partly tided over difficulty thus far by public works that were in progress; but that must soon cease. A relief committee is under consideration.⁵

NORTH CAROLINA.

There are probably no extraordinary numbers out of employment, and no special measures of relief have been necessary.⁶

SOUTH CAROLINA.

Charleston is thought to have more unemployed than usual.⁷ Spartanburg reports the present number at from 50 to 100.⁸ Columbia⁹ and Anderson¹⁰ show no noticeable increase. No unusual methods of relief have been resorted to in these places.

GEORGIA.

Atlanta added \$5,000 to its appropriation for street work, largely in order to give employment. Some 1,500 or 2,000

¹ Mayor.

² Mayor. It is interesting to note the striking similarity between this and the Lynn plan. See p. 170.

³ Mayor, December 5.

⁴ Mayor.

⁵ Treasurer, December 5.

⁶ Mr. B. R. Lacy, chief of the Bureau of Labor Statistics; mayor of Charlotte.

⁷ Mayor, December 3.

⁸ City treasurer.

⁹ Mayor.

¹⁰ Mayor.

people are judged to be out of work.¹ The number unemployed in Savannah is "slightly increased."² There are probably from 10 to 20 per cent. more than usual in Augusta, the number being made up largely of new arrivals.³

FLORIDA.

Jacksonville always "winters" a certain number of tramps. Some few resident cigar-makers and saw-mill hands are out of work. The total number of unemployed is probably not over 700.⁴ Conditions in Pensacola⁵ and Key West⁶ seem to be satisfactory.

ALABAMA.

The unemployed in Alabama seem to be drawn largely from the iron and steel industries. The number of unemployed in Birmingham was estimated at 1,000 in September, decreasing to 400 or 500 in the two following months. The mayor writes that about two-thirds were *bona fide* residents;⁷ but a local paper speaks more recently of "a vast horde of tramps, more or less deserving," which "the closing down of the great industries of the country has turned loose upon us."⁸ "The United Charities, hotels, and wholesale stores have provided food and clothing for the unemployed."⁹ The United Charities are organizing district committees of ladies to report "every deserving case"; and "every woman who has a heart inclined to charity" is enjoined to "cease her voluntary gifts, and unite in administering to the deserving poor."¹⁰ It is stated that "the United Charities can get through the winter on a thousand dollars,"¹¹ and this sum is being raised by subscription. Montgomery has had, according to the mayor, no unusual number of unemployed. He anticipated, however,

¹ Mayor, December 6.² Mayor.³ Mayor.⁴ Mayor.⁵ Mayor.⁶ Mayor.⁷ Mayor.⁸ Birmingham *Age-Herald*, December 5.⁹ Mayor.¹⁰ Birmingham *Age-Herald*, December 5.¹¹ Birmingham *News*, December 6.

some idleness, mainly among the negroes, after December 1, when "the crops are all gathered and housed."¹

MISSISSIPPI.

Vicksburg has about 1,000 unemployed, largely negroes.² Natchez reports no more than usual.³

LOUISIANA.

New Orleans, in common with certain other Southern cities, is every winter the abode of a considerable number of migratory tramps.⁴ There is also a considerable influx of *bona fide* workmen⁵ who find work through what is in New Orleans the busy season.⁶ Both of the classes of immigrants have been considerably augmented this year by the adverse conditions of the North, and particularly of the silver States. In November the city was preparing to receive some 1,000 miners who were reported to be on the road from California.⁷ New Orleans people seem to consider as great exaggerations the newspaper reports that several thousand men have drifted into the city.⁸ The labor agent, acting under the direction of the mayor, has obtained employment for over 500 men, and announces that he can find places for as many more as are willing to work on the plantations or levees. He has also provided temporary free lodging and board for new arrivals.⁹

TEXAS.

Fort Worth,¹⁰ Austin,¹¹ and Houston¹² report no unusual number of unemployed.

¹ Jno. G. Crommelin, mayor.

² Mayor.

³ Mayor.

⁴ President Johnston, of Tulane University.

⁵ Mr. James Sherrard, general secretary Young Men's Christian Association.

⁶ Walter C. Peirce, secretary of the Conference of Charities.

⁷ President Johnston.

⁸ Rev. Walter C. Peirce. Cf. remarks of Miss Kate Field at the recent Music Hall meetings in Chicago.

⁹ Local paper.

¹⁰ Mayor.

¹¹ Mayor.

¹² Mayor, December 11.

ARKANSAS.

Little Rock is reported to have about 1,000 unemployed, mostly "floaters."¹

MISSOURI.

Mr. W. L. Sheldon, the lecturer of the St. Louis Ethical Culture Society, has ascertained, as the result of personal letters, that 250 establishments, ordinarily employing 47,049 at this season of the year, are employing at the present time (about November 20) 40,111. Eliminating certain public departments included in the above returns, the numbers become 41,724 and 34,731 respectively; and the decrease becomes 6,993, or 16.7 per cent. of the number ordinarily employed. The figures "do not cover the great element in domestic and personal service, and also deal only slightly with the enormous class doing 'piece-work' in the homes." About one-half the decrease, or "3,526, would be covered by the reductions made in thirteen firms. 104 employers, applying to 18,000 or 19,000 [employees], report having made no changes at all. 9 or 10 mention a very slight increase. The heaviest reduction appears among contractors, where it averages about one-half."² 34 contractors, ordinarily employing 1,300, have reduced their help to 690.³ Mr. Sheldon declines to draw any inferences in regard to the total number of unemployed in St. Louis. A local paper, however, estimates upon the basis of his figures that they number 18,000.⁴ The secretary of the Trade and Labor Union and editor of the *Courier*, "the national single-tax newspaper of the United States," gives the much more radical estimate of 75,000.⁵ The writer is not informed upon what evidence this last estimate rests. It would amount to

¹ Mayor.

² Eben Reed, secretary of the Masonic Board of Relief, also writes that fully one-half in the building trades are unemployed.

³ W. L. Sheldon, circular letter, "The Employed and Unemployed of St. Louis," December 9.

⁴ St. Louis *Republic*, December 11.

⁵ Mr. Sheridan Webster, in letter, November 26.

something over 18 per cent. of the total population,¹ and seems upon the face of the matter, as well as in the light of Mr. Sheldon's careful figures, very wide of the mark.

Beyond the raising of some \$8,000 by a concert at the request of the police,² no unusual means of relieving distress have been adopted, although special action by the city government is under consideration,³ and the charitable societies are making special efforts.⁴

No estimate of the numbers out of work in Kansas City has been received. A local paper speaks of, "thousands of people" with no resources "to tide them over a period of idleness."⁵ The mayor writes that the "number is not as large as was expected."⁶ The unemployed, he states, "consist mainly of two classes: first, those who have been thrown out of employment by a general reduction in every line of business; and, second, those who have drifted in from other localities, hoping to find employment here. The latter class are the more numerous, and consist largely of unskilled labor."⁷ The chief of police regards "most of the unemployed as transient people."⁸ There is considerable destitution, particularly among the colored people;⁹ and the Provident Association, which maintains a wood-yard, a stone-yard, and a woman's work-room, and furnishes food and clothing to the destitute, has made a special appeal for funds.¹⁰

St. Joseph is thought to have 2,000 to 2,500 unemployed, something over a third of whom are probably women. Public works are contemplated as a measure of relief.¹¹

¹ 415,770 (1890).

² Mr. Laurence Harrigan, chief of police.

³ Hon. Charles Nagel, president of the city council; *St. Louis Chronicle*, November 14; *Republic*, November 25.

⁴ Rev. C. Ziegler, secretary of the Arch-diocese of St. Louis; local papers.

⁵ *Kansas City Times*, December 1.

⁶ Letter from mayor, December 7.

⁷ *Ibid.*

⁸ Mr. T. F. Speer, chief of police; Mr. N. W. Casey, secretary of the Provident Association.

⁹ Despatch in *Minneapolis Tribune*, December 2; *Kansas City Times*, December 1.

¹⁰ *Kansas City Times*, December 1; Mr. Casey.

¹¹ Mayor, December 8.

NEBRASKA.

In Omaha the number of unemployed may be 1,500 to 2,000,¹ of whom one-fourth² to one-half³ are said to have drifted into the city largely from other States. No unusual means of relief have apparently been resorted to. A soup-house is, however, under consideration.

The number of unemployed in Lincoln is said to have increased 50 per cent. in the past six months. The Charity Organization Society has made special appeals for funds.⁴

IOWA.

The insignificant numbers reported out of work by the mayors of Burlington, Davenport, Des Moines, Sioux City, and Dubuque, seem to bear out the assertion of one of them that "the fair State of Iowa has not felt the jar of falling financial, industrial, and mercantile interests, as have her unfortunate sisters to the West, North, and East." A Sioux City paper, however, says that "the very heart of the town is moved by tales of destitution and suffering"⁵ therein. Des Moines⁶ and Sioux City⁷ report public work prosecuted in order to give employment.

KANSAS.

Governor Lewelling has recently issued a somewhat remarkable manifesto, declaring the vagrant law of the State unconstitutional, and instructing the metropolitan police force not to molest tramps or homeless wanderers.⁸ The governor says in explanation:⁹—

There is nothing especial in the circular to cause any alarm in the public mind or to justify the newspaper criticisms of my motives. The

¹ Mr. John Laughlan, secretary of the Associated Charities; Mr. A. W. Clark, superintendent of the Omaha City Mission.

² *Ibid.* ³ Mr. P. W. Birkhauser, chairman of the Board of Public Works.

⁴ Mayor. ⁵ *Sioux City Journal*, November 30.

⁶ Mayor.

⁷ Mayor. ⁸ *Boston Herald*, December 10, 11; *Globe*, December 12.

⁹ *Memphis Star*, December 6.

circular was inspired simply by natural humanity. Kansas has her share of 3,000,000 unemployed workmen in the United States, and these men should not be put in jail and made to suffer degradation for no other reason than that they are out of money. It is no crime to be without visible means of support. I was in that condition once, in 1865, in Chicago. I was no thief, but I was a tramp, in the present acceptation of the term; and, had I been picked up by the police, I could not have found honest work. My circular only applies to men who are in enforced idleness. To that class the rock-pile shall be abolished in Kansas so long as I am governor. Men who commit offences against society are not protected by this circular.

The newspapers report that since the issue of this manifesto tramps and vagrants are flocking to Kansas in great numbers, and that there is a marked consequent increase in petty crimes and in unpaid freight business for the railroads.¹

There is said to be great destitution among the farmers of Western Kansas;² but this destitution has apparently no connection with any scarcity of employment.

Atchison, the only city heard from, has perhaps 100 people without employment.³

OKLAHOMA.

There are thought to be 300 unemployed in Guthrie, an increase of one-half as compared with last year.⁴ The mayor of Oklahoma City writes that the place now harbors 400 idle gamblers, all skilled laborers, "who will resume as soon as the grand jury adjourns."⁵ Aside from this evidence of temporary depression, the industries of the town are in flourishing condition.

WYOMING.

Work is less easily obtained than usual in Laramie.⁶ The percentage of unemployed in Cheyenne is no greater than in previous years.⁷

NORTH DAKOTA.

Bismarck reports 300 out of work.⁸ Grand Forks about the usual number for this season of the year.⁹ Migratory tramps

¹ *Boston Journal*, December 11, 27; *Boston Herald*, December 11.

² *Boston Herald*, December 3.

³ City clerk.

⁴ Mayor.

⁵ Mayor.

⁶ City clerk.

⁷ Mayor.

⁸ Mayor.

⁹ Mayor.

have visited Bismarck, but this "drift-wood has floated past."¹ In general, there are apparently few men out of work in the State.²

SOUTH DAKOTA.

The Commissioner of Labor Statistics, who visited in September every important town in the State, reports that the situation was not alarming, and that in most of the towns men were able to find work. Some 300 men are out of work in the mining region of the Black Hills.³ There are said to be only about 50 out of work in Sioux Falls,⁴ and "none who will work" in Yankton.⁵

MONTANA.

In Great Falls there was a marked influx of discharged miners during September, 2,000 men having been discharged from silver mines within a radius of fifty miles. The great majority of those who drifted into the city have since taken their departure. The number of unemployed remaining is about 200. The Relief Society has cared for the needy.⁶

There are said to be nearly 5,000 unemployed in Butte City, a large majority of whom have drifted in from the mines. The city has given employment by an expenditure of \$50,000 on sewers and grading.⁷

COLORADO.

The recent experience of Denver is particularly interesting on account of the large number of persons suddenly thrown out of employment and on account of the radical and apparently successful expedients adopted for their relief.

The number thrown out of work in Denver between July 1 and September 1, according to the State Commissioner of

¹ Mayor.

² Mr. Nelson Williams, Commissioner of Agriculture and Labor.

³ Mr. Walter McKay, Commissioner of Labor Statistics.

⁴ Mayor.

⁵ Mayor.

⁶ Mayor.

⁷ Mayor.

Labor,¹ was 14,000. There was besides a considerable influx of miners from other parts of the State, who naturally flocked to Denver. There are said to have been 45,084 persons thrown out of employment in the State, 22,492 of whom are reported to have left their former place of residence.² The chief of police³ and the editor of *Mining Industry and Tradesman* estimate that about one-quarter of the total number of those out of work drifted into Denver from the mining regions. This would bring the total of unemployed, both citizens and strangers, up to 17,500⁴ at its highest point. Some estimates place the total as high as 20,000.⁵ On the other hand, the mayor writes that the reports during July and August were "very much exaggerated." We may perhaps adopt 15,000 as a compromise. This would be equivalent to about 14 per cent. of the population.⁶

The unemployed who drifted into the city were mainly miners. The residents thrown out of employment came from a wide variety of trades. Carpenters, bricklayers, teamsters, railroad trainmen, salesmen, and printers are mentioned as peculiarly affected.⁷ The distress was largely among unskilled laborers.⁸ Various nationalities were represented, the Swedes being mentioned as particularly unfortunate.⁹

The influx of unemployed was apparently more than neutralized by the exodus of labor that soon followed. "Most of those who came here," writes one correspondent,¹⁰ "are now scattered from ocean to ocean." The mayor says, more specifically, that many have found work on the ranches and in recently opened gold mines. The number that left the city

1 J. W. Brentlinger, in Colorado Bureau of Labor Statistics, Bulletin No. 2 *Effects of Demonetisation of Silver on the Industries of Colorado, July 1 to August 31*.

2 *Ibid.*

3 Mr. James C. Veath.

4 That is, on the basis of the Labor Commissioner's figures.

5 C. K. Couse, secretary of the Denver Typographical Union; J. C. Veath, chief of police.

6 Population (1890), 106,670.

7 Mr. Couse and others.

8 Mayor Van Horn, Mr. Veath, and others.

9 Mr. J. J. Fitzgerald, secretary of the Brotherhood of Railroad Trainmen.

10 Mr. Couse.

during July and August is placed by the State Commissioner of Labor at 6,000.¹

This dispersion of the unemployed and the improvement of local conditions has greatly relieved the situation. Although some observers still rate the unemployed at 10,000,²—this figure being one-half of their estimate for July,—and although the Commissioner of Labor says that “extraordinary methods will again have to be resorted to, to care for the poor during the coming winter,”³ the general feeling appears to be more hopeful. It is hoped that less unemployed than usual will drift in from the mountains;⁴ and the mayor writes almost optimistically: “At present we do not notice any unusual number” of the unemployed. “We do not expect to have an unusual amount of suffering this winter.” “No deserving person need suffer here, if his wants are known.”

The methods adopted by the citizens of Denver to meet the sudden exigency of July are of great interest. At the beginning of the panic the city appropriated from funds on hand \$15,000 to employ men in grading the streets. This sum was soon expended,⁵ giving some ten thousand days of work to married men, at the rate of \$1.50 for one day's labor of eight hours.⁶ More recently the city has let contracts for paving and extension of sewers,⁷ at a cost of nearly \$500,000.⁸ This last work would, however, have been done in any event. It has, nevertheless, given employment to a considerable body of men.

The plans for feeding and sheltering the unemployed, particularly the newly arrived miners, seem to have been set on foot by the Denver Trades and Labor Assembly, which obtained rooms, furniture, selected cooks and waiters from among the unemployed, and solicited supplies. The work was taken in hand by citizens' committees; and, with the co-operation of State and municipality, shelter and two meals a day were provided for some seven weeks for 1,000 or 1,500 men at “Camp Relief,”—a camp established for this special purpose, and

¹ Bulletin No. 2.

² Mr. Couse and others.

³ Letter of Commissioner of Labor.

⁴ Mr. Couse.

⁵ Mayor Van Horn.

⁶ Mr. Couse.

⁷ Mayor.

⁸ Mr. Couse.

kept under military discipline.¹ Some \$4,000 was contributed to this enterprise, besides an immense amount of provisions, the value of which has not been computed.²

The churches and two missions, the Tabernacle and the Haymarket, also organized to help the needy.³ The latter is a remarkable institution, with departments providing "gospel services," free medicines and consultation, free reading facilities, and clothing; including, further, an employment bureau, which has secured work for 2,000 people during the past year, and having recently developed the timely adjuncts of a restaurant, a wood-yard, and a lodging-house, all three of which go by the name of Maverick. The following is an authoritative account of the relief work of these last departments:—

The Maverick Restaurant was made possible during a time of great financial stringency by the generosity of two members of the advisory board. The demand for a place, where a good meal of substantial, well-cooked food could be obtained at the minimum price, was almost universal on the part of people of scanty means. Especially was this true after Camp Relief was abolished. How the Maverick provides the meals, which it furnishes for five cents, is the wonder of all who test the food placed on its tables. 150 guests can be accommodated at a time. The restaurant has been in operation about three months, and has fed an average of 550 people per day. The restaurant pays all its bills from the receipts from the sale of tickets. The employees are each paid \$1.25 per week, and given their board and lodging. As fast as they find more remunerative employment, their places are filled from the many applicants always waiting for employment.

The wood-yard is the complement of the restaurant. After the eating-house had been established, it was found that there were many men who did not possess the nickel necessary to purchase a meal. We had no funds upon which to draw by which we could give away meals, even had that been thought wise. Most men would much prefer to earn their meals if they could but find the work. The streets of the city were lined with men begging meal tickets or money with which to purchase them. On October 4 the Maverick Wood-yard was opened, with the announcement that every destitute man who applied would be given enough work to earn three meal tickets and one lodging ticket per day. The lodgings provided are clean and comfortable. A man can earn his meals and bed in from one to three hours, and have the balance of the day to look for a better job.

¹ Mayor, Commissioner of Labor, and others.

² Commissioner of Labor.

³ Mayor.

No man has been turned away who desired to work. An average of 63 per day have been employed. The result has been that able-bodied beggars have about disappeared from the streets of Denver.¹

Concerning the efficiency and success both of Camp Relief and of the Maverick Restaurant, so far as concerns the immediate object of furnishing relief at small cost, there can be no question. Both supplied apparently "square" meals at a cost of less than five cents,² — a figure which leads one to suspect that they must have surreptitiously adopted Mr. Edward Atkinson's Aladdin oven. The Commissioner of Labor gives 12,500 as the total number receiving assistance. As to ultimate results, opinions differ. The mayor writes, "When relief was being furnished by the city, many came from the smaller towns for the relief, and many were impostors"; and another correspondent is of the opinion that the "charity was abused."³ This of course refers only to the earlier stage of the experiment, when meals and lodging were given without the corresponding requirement of work. On the other hand, the chief of police writes that "the expedient adopted has largely prevented serious trouble. Instead of demoralizing influences resulting, the unemployed men have been exceedingly sensible and orderly; and there has been less drunkenness than ever before in the history of the city."

Statistics collected by the Commissioner of Labor Statistics, "in order to ascertain as nearly as practicable the effects of the infamous attack upon silver" by "the uncrowned kings of Wall Street," and to show "the wide-spread devastation being wrought in the State through the prostration of an industry which has filled our otherwise solitary mountains with thousands of our bravest and most stalwart citizens, who have built roadways along the dizzy heights and beetling crags, where the eagle once circled in unbroken silence, amidst the awful grandeur of Nature's work in her sternest mood,"⁴ present some interesting figures in regard to the number

¹ First annual exhibit of the Haymarket Mission.

² Mayor.

³ Editor of *Mining Industry and Tradesman*.

⁴ Bureau of Labor Statistics of Colorado, Bulletin No. 2, *Effects of the Demonstration of Silver on the Industries of Colorado*.

thrown out of employment, and more especially in regard to the exodus of labor from the towns and camps most affected. The following are the figures for a few towns, and the totals for the State:—

	<i>No. thrown out of employment July 1 to Sept. 1.</i>	<i>No. leaving town July 1 to Sept. 1.</i>
Amethyst,	2,000	2,000
Ashpen,	2,000	1,200
Denver,	14,000	6,000
Leadville,	2,500	1,500
Ouray,	1,800	1,000
Pueblo,	2,500	1,500
Total for State,	45,084	22,492

ARIZONA.

The number of unemployed in Tombstone is reported to be 50.¹

NEW MEXICO.

There is said to be no marked lack of work in the Territory. In Albuquerque, which is stated to be in the same position as the other cities of the Territory, there has been little disturbance of local conditions of employment, except during July and August. The city has, however, been a place of temporary sojourn for large numbers of tramps,—as many as 160 in a single day *en route* for California, “all of whom claimed to be workingmen, but none of whom would work.” The citizens have fed them, and sent them on.²

CALIFORNIA.

There are extraordinary variations in the estimates of the number out of employment in San Francisco. The secretary of the San Francisco Labor Council,³ who registers “weekly reports from over 60,000 wage-workers on the Pacific Coast,” gives as an estimate based upon these trade reports 15,000 or

¹ Mayor.

² Hon. W. B. Field, mayor of Albuquerque, November 20.

³ Mr. M. McGlynn.

20,000 unemployed in the city.¹ Another correspondent² regards 25,000 as "probably a conservative estimate." On the other hand, the mayor puts the number at from 2,500 to 3,000,³ and the secretary of the Mechanics' Institute at something over 3,000.⁴ Both of the latter state the numbers out of work have been greatly exaggerated by professional agitators.

There is great variety of opinion also as to the increase of idleness as compared with the conditions a year ago. It would appear that the number out of work has increased several fold.⁵ Perhaps one-half of the unemployed might fairly be counted as citizens of San Francisco. There is a considerable drift city-ward, induced not so much by any expectation of charity as by hope of finding work in connection with the Mid-winter Exposition⁶ and by the metropolitan character of the city. Statements as to the opportunities for work on farms or vineyards within reasonable distance of the city are contradictory. Our correspondent affirms⁷ that there is plenty of work, but that the city population is unwilling to accept it. Others aver that the Chinese monopolize what few chances there are.⁸

The ordinary methods of dealing with the unemployed are: first, a wood-yard, under the control of the Associated Charities, designed to furnish merely temporary relief, which, during the three winters it has been in operation, has given employment to 6,837 men;⁹ and, second, the ordinary assistance rendered to the destitute by public agencies, the Associated Charities, the churches, benevolent associations, etc. No reply has been received which indicates that any of these agencies is making extraordinary efforts to meet the present situation.

¹ This would be about 6 per cent. of the total population (1890), 297,990.

² Mr. D. Allison, Knights of Pythias Bureau of Relief.

³ Statement received through Mr. H. H. Smith, secretary of the Board of Trade, December 13.

⁴ Mr. G. G. Ayers, December 12.

⁵ Mr. D. Allison, Mr. M. McGlynn.

⁶ Mr. D. Allison.

⁷ Rev. W. D. Williams.

⁸ Mr. D. Allison, Mr. M. McGlynn.

⁹ Circular letter of the Associated Charities, November, 1893.

The special measures of relief adopted are interesting on account of the part played by the Salvation Army. A soup-kitchen was established by citizens, but soon turned over to the Army;¹ and it is said that the Salvationists feed some 600 men daily.² In connection with this work of the Salvation Army, the plan of sweeping the streets by hand labor has been tried. The sum of \$3,000 per month was made available by the city, and the unemployed were offered work in squads of 83 men during a part of two days each week, in return for which they were to receive the board and lodgings provided by the Salvation Army for an entire week, thus affording them ample time to search for other work. The city is prepared to employ on these terms 400 men a week. The fact that during the first four days³ of the experiment less than 30 men applied daily would seem to indicate that, however large the number of men out of work may be, the amount of destitution was not at that time very great. Captain McFee, of the Salvation Army, stated, however, that he was "turning away from 50 to 60 persons every night who have no place to sleep," and that there were "many women in the city who (had) no place to sleep." The Army is endeavoring to provide additional lodging-houses for men and for women. In connection with the street-sweeping plan, it is interesting to note that "certain labor agitators are doing what they can to prevent unemployed persons from taking what is offered them in the way of work."⁴

Fresno is said to have been "overrun by the unemployed" for some days about four months ago. The citizens gave them meals for four hours' work each day on the streets. Most of them found work in vineyards or on ranches within ten days. The amount of involuntary idleness is now very small.⁵

There has been something of an influx of tramps in Los

¹ Mr. McGlynn.

² Mr. F. J. Kane, secretary of Youths' Directory.

³ November 7-10.

⁴ Mayor Elbert, in interview in *San Francisco Bulletin*, November 11. Cf. also *Examiner*, November 11.

⁵ Mayor.

Angeles. The number is said not to be diminished by the practice of the "Faith Home" and other institutions of providing free nourishment for the body as well as for the soul. The public authorities have opened a free employment bureau, and an Associated Charities Society has recently been organized.¹

Some 300 or 400 farm laborers and others are said regularly to "winter" in Sacramento. The number out of work this year is affirmed to be smaller than usual.²

OREGON.

Governor Penneyer has written an open letter to President Cleveland, in which he says, "To-day is the first Christmas in the history of Oregon when more than two-thirds of its people are without employment, and more than one-third without sufficient means of support."³ The writer is disposed to think that the governor's estimates of the unemployed and destitute are also "without sufficient means of support."

In Salem there is a small increase in the number of unemployed.⁴ The township trustees of East Liverpool are establishing a soup-house.⁵

WASHINGTON.

The unemployed of Spokane are thought not greatly to exceed 500.⁶ Those of Tacoma number perhaps 1,200.⁷ Higher estimates are, however, current in both cities. Spokane has recently expended \$100,000 in paving. Both cities have extensive public works under way.

Local conditions in different parts of the country are so diverse and methods of relief resorted to have been so various that it is difficult to generalize. One or two statements, however, may perhaps be justified.

¹ Mayor, December 3.

² City clerk.

³ Despatch in *Boston Journal*, December 27.

⁴ Mayor.

⁵ *Salem Herald*, December 3.

⁶ Mayor.

⁷ Mayor, December 5.

As might have been expected, the regions and cities whose interests centre mainly in manufacturing and mining have borne the brunt of the enforced idleness of the past few months. The cities and towns whose prosperity is gauged by that of a tributary agricultural region have suffered least. This applies to many cities in the West and South.¹

In many cities there was a sudden suspension of industry in the summer or early fall, and great numbers of people were for a few weeks without employment. A more or less gradual resumption has since been taking place in many places, and certainly in certain great industries.² On the other hand, the demand for labor in many trades is lessened by the approach of winter; and in some cities the total number of the unemployed is thought to be increasing. It seems probable, however, that this belief is largely based upon the increasing evidence of destitution which would inevitably make itself manifest, irrespective of any increase in the number out of work, as the resources of the unemployed became exhausted by the long-continued idleness.

The measures of relief adopted are of two great classes, according as they aim, first, to distribute assistance through the ordinary channels of charity, or, when occasion demands, through special agencies; or, secondly, to provide special temporary employment.

Conservative charitable organizations naturally and rightly dread the effects of well-meant but careless and demoralizing distribution of food and other necessities by improvised and often "popular" agencies; and in many places they succeed either in suppressing these mushroom schemes or in bringing them under their own influence. Only the greatest exigency can justify the distribution of relief by improvised and inexperienced agencies.

Employment has been provided in a considerable number of cities by means of an increase in the amount of public work,

¹For a summary of estimates by States, cities, and towns, see the table on p. 257.

²*Cf.* files of trade journals; e.g., *Industrial World and Iron Worker and Manufacturers' Gazette*, September–November.

paid for by special loans or appropriations. In some cities new public works have been begun or anticipated with the object of furnishing work. In others existing public works have been pushed forward at a somewhat augmented rate. The amount, however, of such special public employment,—partly, no doubt, because of the difficulty in negotiating loans, and partly on account of the approach of winter,—has not been so large as might have been expected.

An interesting modification of the plan of public employment is the raising of the necessary funds by private contributions, the work itself being usually carried on under the direction of public officials. In emergency employment upon public works, whether with public or contributed funds, special arrangements are often made to restrict the work to resident heads of families and to limit the amount granted to any one man in the interests of the whole number of applicants. Resumption of ordinary industry, however, restoring the unemployed to the work to which they are accustomed, is of course the great means that must be counted upon to relieve the present distress.

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PAIN-COST AND OPPORTUNITY-COST.

IN defending the standard theory of value against the attacks of the Austrian economists, Professor Macvane uses the following language : —

The classical conception of cost may not be without flaw, but it has at least the merit of addressing itself to those features of production that men must always and everywhere *feel* as cost. The cost that comes home to producers in the form of tired muscles and tedious waiting for the enjoyable fruits of labor, is not one that finds expression in terms of utility or value. It looks to the production of things that have utility and value: it is itself, however, the conscious sacrifice of present ease and enjoyment for the sake of obtaining "utilities fixed and embodied in material objects." And, after all has been made that can be made of the Austrian theory of cost [which regards cost as depending upon the value of the products], this other very real cost remains to be considered. It will refuse to be dropped out of the economic horizon so long as men regard labor and waiting as burdensome sacrifices. Finally, the observed tendency of value to conform to cost in this sense will have to be explained by economists; and those who maintain that value is fixed by marginal utility have still a good deal of explaining to do under this head.*

This passage is quoted as illustrating or suggesting the imperfections of both the classical and the Austrian conceptions of cost. In a later part of the present paper an attempt will be made to defend the marginal utility theory in its relation to costs, but it must be conceded that Professor Macvane's criticism is well taken. If all the elements of production, including the different classes of labor, have their values determined through the value of their products, it is evident that a very important subject is left out of consideration, or at most left quite in the background; namely, the quantity of unpleasant sensations which the production of the different commodities requires. This most vital element of cost, which comes from

*"Marginal Utility and Value," *Quarterly Journal of Economics*, April, 1893, p. 269. See also "The Austrian Theory of Value," by the same writer, in the *Annals of the American Academy of Political and Social Science*, November, 1893.

"tired muscles and tedious waiting," is considered by Professor Patten the only element that deserves the name of cost.* It is largely through the reduction of this pain-cost in proportion to the utilities produced that economic progress is manifested.

That this discomfort element of cost deserves more careful attention on the part of economists is unquestionable, but I think that Professor Macvane is wrong in considering cost in this sense the general basis of the ratios of exchange in modern transactions. A scientist receives twenty-five dollars for delivering a lecture, and pays the same amount to a laborer for constructing a drain from his cellar. May we then expect that the scientist and the laborer have suffered the same amount of disagreeable sensation in performing their respective services? Of course, we must not stop with the consideration of the disagreeable feelings (if there were such) experienced in merely delivering the lecture. The ability of the scientist is doubtless due in part to extended training, and this training may have been unpleasant and wearisome. If so, some small fraction of this pain must be added to the immediate discomfort of preparing and delivering the lecture. Thus in some such cases we might find a considerable pain-cost on the part of the lecturer; but, if our scientist deserves that name, and enjoys good health, he would probably report that every part of his preparation and service gave him pleasure rather than pain, and that he limited his efforts in one direction, not on account of the pain which accompanied them, but because they interfered with more fruitful opportunities in other directions. When all the discomforts involved in rendering the twenty-five dollar services are added together, if the laborer proves to suffer the most, it does not necessarily follow that his pay will tend to rise relatively to that of the lecturer.

But it may be said that the services of the scientist bring a high price because his special ability is rare, and the scarcity interferes with the economic forces which would otherwise

* "Cost and Expense," *Annals of the American Academy of Political and Social Science*, May, 1893. Waiting, however, is excluded from cost by Professor Patten.

be operative. This is undoubtedly true, but the theory of value which omits the element of scarcity has but slight application in the economic world. What class of labor, of land, of capital goods, can be supplied without limit? A limited supply is always given as one of the primary requisites for value. So long as the supply of every grade of labor and service is limited, and limited largely by conditions which the difference in price cannot overcome, there can be no direct relation between the pain involved in production and the exchange value of the product. The mere fact that different grades of labor receive different rewards for the same amount of painful effort tends to increase and perpetuate the inequality, by giving the higher grades the greater opportunity for self-improvement. We ought not to speak of the higher grades of labor as having a monopoly value; for they are not united under one control; but they have an advantage over the lower grades because they are more efficient. The complicated processes of modern production make it difficult to compare the pain involved in making different commodities; but, if we consider the pains endured in productive labor by the different people of our acquaintance, and compare the pains with the values produced, we shall certainly find that the rule of equal values for equal pains is not the law which actually determines exchange ratios. The fact is too obvious to need further illustration.

Not only does Professor Macvane seem to be in error when he considers "the cost that comes home to the producers in the form of tired muscles and tedious waiting" as the criterion of exchange value, but he also appears to me wrong in attributing such a doctrine to the classical theory of value. To be sure, when Adam Smith regarded labor as the true measure of value, he referred to the subjective cost which the laborer sustains in laying down "his ease, his liberty, and his happiness." But, when quantity of labor was made the basis of exchange ratios, a different conception was taken up; and quantity of labor referred to its efficacy as well as to the pain that was involved. An extract from the *Wealth of Nations* and another from Ricardo's *Political Economy* will make the point clear.

But it is not easy to find any accurate measure either of hardship or ingenuity. In exchanging, indeed, the different productions of different sorts of labor for one another, some allowance is commonly made for both.*

In speaking, however, of labor, as being the foundation of all value, and the relative quantity of labor as almost exclusively determining the relative value of commodities, I must not be supposed to be inattentive to the different qualities of labor, and the difficulty of comparing an hour's or a day's labor in one employment with the same duration of labor in another. . . . The estimation . . . depends much on the comparative skill of the laborer and intensity of the labor performed.†

John Stuart Mill took a slightly different though similar position when he observed (Book III. chap. iv., iii.) that things "which are made by skilled labor exchange for the produce of a much greater quantity of unskilled labor," and that "the relative wages of the labor necessary for producing different commodities affect their value just as much as the relative quantities of labor." It was left for Cairnes to give the first extended consideration to the relation of different grades of labor to value, but the passages quoted above are sufficient to show that the classical economists did not regard pain-cost as the regulator of exchange ratios. If we turn to Marshall, who presents the classical theory in its most advanced form, we find the following statement:—

It is commonly said that the tendency of competition is to equalize the earnings of people engaged in the same trade or in trades of equal difficulty; but this statement requires to be interpreted carefully. For competition tends to make the earnings got by two individuals of unequal efficiency in any given time, say a day or a year, not equal, but unequal; and, in like manner, it tends not to equalize, but to render unequal, the average weekly wages in two districts in which the average standards of efficiency are unequal.‡

Perhaps too much space has already been taken to establish a point which, when plainly stated, very likely neither Professor Macvane nor any one else would deny; but, if cost in the form of disagreeable sensations is not the basis of the ratios

* *Wealth of Nations*, Book I. chap. v.

† Ricardo's *Political Economy*, chap. I. sect. 2.

‡ *Principles of Economics*, p. 578, second edition.

of exchange, it is of great importance that we recognize the fact, so that we may look unhesitatingly for a more satisfactory solution of the problem.

That the exchange value of commodities which are subject to free competition tends to correspond with the cost of production has been recognized from the beginning of economic theory, and must in some sense be true. But what is commonly summed up in the term "cost" is not principally the pain of weariness on the part of the laborer, and of long delay in consumption on the part of the capitalist; but the cost consists for the most part of the sacrifice of opportunity. A certain man cannot afford to keep books at \$100 a month. Why? Because he can earn \$200 as superintendent of the shops. Another or the same man cannot afford to work over six days in the week, because such action would deprive him of important opportunities for pleasure and advancement. A farmer cannot afford to use a certain lot for pasture, because it yields him greater profit as meadow. The laborer stops work at a certain hour, not simply because he is tired, but because he wants some opportunity for pleasure and recreation. That which gives a man strength in his demand for higher pay is the fact that he is able to secure higher pay elsewhere. By devoting our efforts to any one task, we necessarily give up the opportunity of doing certain other things which would yield us some return; and it is, in general, for this sacrifice of opportunity that we insist upon being paid rather than for any pain which may be involved in the work performed.* The poor woman who can earn no more will work hard and late for a dollar; but, when an increased demand for her special ability gives her other opportunities, she will ask for better terms.

It has often been observed that even the most common

* At first thought, one might suppose that, to an ambitious person, the sacrifice of an opportunity would cause pain, and thus render the distinction between pain-cost and opportunity-cost of little importance. No doubt the real loss or abuse of an opportunity would be painful to a sensitive mind, but to choose the best of a number of mutually excluding opportunities should cause no regrets! To the healthy mind nothing is detracted from the pleasure of a chosen course of action by the fact that another course approximately as good might have been chosen. Rather such an alternative would often add to one's enjoyment by relieving anxiety. It is only when, by mistake, one has chosen the less profitable course that the loss of opportunity becomes painful.

unskilled labor is not all painful. The wages given for the first hour of a day's work are not paid on account of any discomfort endured; but the laborer secures just as much pay for the first hour as for the last, because it could be utilized for other purposes to just as good advantage. His power for doing work is an opportunity to him which he cannot afford to transfer to his employer without some return, whether the work be burdensome or not. The pain involved in a day's work depends for the most part upon the health and disposition of the laborer. It plays an important rôle in the theory of subjective value, but has little to do with power in exchange. The subjective feelings of different individuals are not easily compared, but the economic opportunities which a man sacrifices by pursuing a certain course of action are more capable of objective measurement. These sacrifices of opportunity are what constitute the principal part of the costs of production which determine normal exchange values.

We may hope that, through the moral, physical, and economic improvement of mankind, the direct painfulness of productive labor may some time be eliminated. Remorse for wasted opportunities would still remain, and misfortunes would come laden with grief; but no one would need deliberately to subject himself to painful sensations for the sake of a livelihood. Though such were the condition of our economic life, yet productive effort would involve the sacrifice of certain opportunities for the sake of others, and the ratios of exchange would still tend to correspond to the sacrifices of production. The day is short, life itself is short, one's powers are limited, and one's possessions are seldom as large as he would like. Our opportunities, therefore, whether for pleasure, for work, or for acquisition, must be economized. It is not only our right, but it is our duty, to yield none of these opportunities without securing an adequate return. The return may be in the general form of money, or it may be in recreation, direct happiness, or the pleasure which comes from helping others and the consciousness of rectitude. In one form or another, we should insist upon a return from the opportunities which are at our disposal. That people do com-

monly demand an adequate return for opportunities sacrificed is the fact which lies at the basis of our ratios of exchange.*

But, when we once recognize the sacrifice of opportunity as an element in the cost of production, we find that the principle has a very wide application. Not only time and strength, but commodities, capital, and many of the free gifts of nature, such as mineral deposits and the use of fruitful land, must be economized if we are to act reasonably. Before devoting any one of these resources to a particular use, we must consider the other uses from which it will be withheld by our action; and the most advantageous opportunity which we deliberately forego constitutes a sacrifice for which we must expect at least an equivalent return. The sacrifice of waiting, which some writers take so much trouble to establish as a justification of interest, is almost entirely of this kind. Mr. Wanamaker, wishing to lay by something for the support of his family, has his life insured, and pays the premiums. The insurance company, if honest, has no desire to hurriedly consume the wealth that is thus placed in its hands. Why, then, is interest required upon the mortgage in which the company invests the money? It is because the possession of the capital constitutes an opportunity of some kind which the company is unwilling to forego without adequate reward. If the opportunity is not utilized in some way, the best welfare, not only of the insurance company, but of society in general, will suffer. The hardships incident upon excessive saving have an important effect upon the supply of capital, but the interest actually paid is gauged by the opportunities foregone rather than the pain endured.†

*In a torpid state of society, such as that manifested by some uncivilized races, but little attention is given to opportunities. All labor is irksome, and its cost is a pain-cost. On the other hand, in emphasizing our duty to utilize our opportunities, I would not be thought to justify the extortions which unbalanced competition often renders possible. We should use our opportunities for helping others as well as ourselves.

†An interesting question arises as to whether there is any pain-cost corresponding to interest. As already stated, Professor Patten maintains that there is none. See the *Theory of Dynamic Economics*, Part IX., and an article entitled "Cost and Utility" in the *Annals* for January, 1893. Professor Patten is doubtless correct in assigning the pain-cost to the production of the capital rather than to abstinence from its immediate consumption; for, after the capital has been ac-

It is often said that rent does not enter into cost and price. From a certain standpoint, and with many limitations, the saying is true; but it is not always easy to find the no-rent margin or to fully convince ourselves that the price is determined there. The difficulty is obviated by considering the opportunities sacrificed in making a particular use of a particular piece of property. As a matter of fact, all business men consider the rents which they pay as a part of the expense which the price of the products must cover. In selecting a farm to work or in locating and managing a manufactory, the thrifty man chooses between higher rent and less labor or lower rent and more labor, between more capital or more labor, and between workmen of greater skill or a larger number of unskilled laborers; and all these choices are made with a view to rendering the cost of production as low as possible, in order to compete successfully with rival producers.

The use of a fruitful piece of ground for a particular purpose is as truly a sacrifice on the part of the entrepreneur, or of society in general, as the employment of a laborer, so long as both the land and the wages could otherwise be profitably employed. If all labor is included in cost, there is no reason for excluding the use of land; for, as we have seen, labor is principally an opportunity-cost instead of a pain-cost.*

quired, the question of abstinence is a choice, for the most part, between two pleasures rather than a question between a certain amount of suffering and the resulting reward. Yet, inasmuch as some positive discomfort is incurred, not only for the sake of the capital, but also for the sake of the interest alone, so far we must recognize that there is an element of pain in the cost for which interest is the reward. The pain element may be slight; but, if it were reduced to zero, much more capital would be saved. We may easily imagine a man who fully intends to build a new house with some savings which he has accumulated, but who, while waiting for the sake of more interest, endures some positive mortification in entertaining his friends in his present dilapidated quarters. If saving were carried very far, many pains of this character would be incurred; and, finally, cold and hunger might be suffered for the sake of future abundance. It is evident, I think, that the painfulness of saving as well as of producing capital helps to limit its accumulation, and that some such pain, actually endured, enters into the cost of producing commodities.

Since the above note was written, the cost of the marginal saving which is just offset by interest has been well brought out by Mr. T. N. Carver, in the *Quarterly Journal of Economics* for October, 1893.

* Professor Macvane may object to these thoughts, as he does to those of Dr. Von Wieser, on the ground that they relegate cost "to the region of the might have-beens"; but such is the very nature of costs, except in so far as they con-

To refer the ordinary expenses of production to the opportunities which must be paid for is but a short step. We must still explain how these opportunities originate, and upon what principles their relative strength is determined.

It would be well at this point to classify economic opportunities; but, as this article aims to give only the most general outline of a theory of cost, it will merely be said that some opportunities are for direct enjoyment, while others are for acquisition of wealth; some give the power of exploiting society without creating any additional utility, while others involve a real service to society fully equal to the return which can be secured; some are due to the institution of private property, patents, and other legal restrictions, while others are inherent in the nature of production with limited resources, and must be operative even under a socialistic régime. In all these opportunities we find the one common element,—a power to satisfy want. It is to utility, in connection with the limitation of supply, that we must turn for an explanation of the fact that one man earns more than another with the same exertion, that one piece of ground rents for more than another of the same size, and, in short, that the expenses of production and the ratios of exchange do not correspond to the pain-costs involved. Given a certain number of men having a certain uniform degree of efficiency, economic forces will naturally draw them to the positions where their ability is most needed. Some of the men will satisfy more urgent needs than others; but, having uniform ability, they will, in general, receive the same pay. The urgency of the need for the last man of this class fixes the pay for all. The pay represents the marginal utility of the class of labor in question.* When one

assist of direct pain. I spend a dollar for an excursion. The excursion becomes a reality, and its utility is enjoyed; but what the excursion really cost me—the utility that would otherwise have been derived from the dollar and the time—must always remain uncertain. I hire out for a year, and enjoy my salary; but just what enjoyment I sacrifice by not waiting for a better offer can never be fully known. These opportunity-sacrifices must always have the unreal character of might-have-beens, but they come near enough to existence to have the controlling influence over objective exchange values. We need no other excuse for considering them in our theory of value.

*It should be noted that, in accounting for prices or exchange ratios, all needs and utilities must be expressed in terms of the unit of purchasing power. Under

of the men engages his services, he is presumably sacrificing an opportunity of earning the marginal utility rate of pay, and no more.

The same principle applies to the other factors of production. Given a certain amount of homogeneous free capital for investment, some of it is urgently needed, and would be in demand, though the rate of interest were one hundred per cent.; but, the supply being adequate to the trustworthy demand down to five per cent., five per cent becomes the rate for all.* If a man loans his capital, it is presumably an opportunity of loaning it to some one else at five per cent. that he thereby foregoes. The same principle applies to the use of land. Given a certain number of city lots having equally advantageous positions: if free competition has full play, the ground rents will be the same for all the lots, though some of them happen to be used for much more important purposes than others. The land upon which the factory is built brings no more rent than that occupied by the laborers' dwellings, because, if a higher rent had been asked, the factory could have been placed elsewhere just as well. Like the other factors of production, the use of land also is prized in accordance with the law of marginal utility. When short periods of time and changing conditions are under consideration, the same principle must be resorted to for an explanation of the amount of income to be derived from a piece of fixed capital which cannot readily be replaced or which is out of date or dilapidated.†

Thus we find the tenets of the classical economists leading us inevitably to the tenets of the Austrian school. The values

the present system of economic life, not the wants which are really most urgent, but those which are represented by the largest purchasing power, are satisfied first. The so-called marginal utility to society therefore is really no definite utility at all, but a definite amount of money which would be offered for the last increment of the supply. The lack of purchasing power may cause needs to remain unsatisfied which are much more urgent than those felt by the marginal purchaser.

*Of course, differences of risk, trouble, and many special considerations are here neglected.

† An excellent account of the relationship between long and short periods in respect to the income derived from different forms of fixed capital is to be found in Marshall's *Principles of Economics*, Book V., chaps. v. and ix., of the second edition.

of the factors of production are imputed to them on account of their marginal utilities. It is readily seen that the utility of the means of production depends upon the utility of the products, and the position taken by the Austrians is thus vindicated.*

If we look upon society as a whole and all productive activity as a whole, only the pain endured appears as cost, and all the opportunities are found upon the side of the reward;† but, as soon as we look more closely upon our varied resources and the individual activities of economic life, we discover that many of our good opportunities are limited in number and extent, so that before devoting the opportunity to a particular activity it behooves us to consider from what other uses we are thus withholding it. Such consideration gives rise to the conception of opportunity-cost. It is not only for the painfulness of labor and waiting that we insist upon being rewarded, but also, and more largely, for the opportunities foregone in accepting a certain line of action. Opportunity-cost thus becomes the chief force which determines the prevailing ratios of exchange. But economic opportunities depend upon the power to satisfy want, and their values are imputed to them through the principles of marginal utility. The commonly accepted view that the normal values of goods that are produced under free competition correspond with the relative expensiveness of their production will doubtless remain as the most ready means of accounting in a general way for the ratios of exchange, but the sacrifices of opportunity which determine the expenses of production must find their explanation upon the side of utility.

Before closing this article, something more should be said in regard to the relation of the two forms of cost, or of cost and sacrifice as Professor Patten denominates them, in determin-

*Space will not be taken here to describe the processes through which the marginal utility of any much used factor in production is derived from the marginal utilities of its products. For a treatment of this subject the reader is referred to Böhm-Bawerk's *Positive Theory of Capital*, Book IV. chap. vii.; or to *An Introduction to the Theory of Value* by William Smart, chaps. xii. and xiii.; or, still better, to *Der natürliche Werth* by Dr. Friedrich von Wieser, Part I. Division 3.

† This thought is well brought out by Professor Patten in the articles referred to above.

ing objective values. Does the expense of producing a commodity tend to correspond to the sum of the two elements, or is it determined by the sacrifice of opportunity alone? No universal answer can be given. If the production of a certain commodity is of itself disagreeable, so that those engaged upon it feel the discomfort, then an extra wage will, in general, have to be paid in addition to that which the same workmen could obtain elsewhere; but, when the element of pain arises from individual peculiarities, it has no direct effect upon the expenses of production. The wages, salaries, and interest demanded will depend upon the opportunities to be sacrificed. The increasing painfulness of labor and abstinence, when carried beyond certain limits, has an important ultimate effect upon the expenses of production; but it is exerted only indirectly by limiting the supply of the agent in question.

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SOCIAL AND ECONOMIC LEGISLATION OF THE STATES IN 1893.

THE laws enacted from year to year by our State legislatures have a special interest for the student of sociology, as indicating certain tendencies in public opinion. Certainly, no better index can be found of the progress of politico-economic movements than is furnished by the action of the people's representatives in respect to the questions at issue. It may indeed be freely granted that such action is often not seriously meant, that it does not really give expression to the legislator's sincere convictions of public duty, that sometimes it is not honestly intended to help in executing the popular will, and that sometimes the motives behind it are, in short, those of the demagogue; and yet it remains true, to an increasing extent, that all important social and economic changes among us are sooner or later brought to the attention of our law-makers, and more often, perhaps, than we suppose, such changes are even foreshadowed on our statute books.

In any review of the legislation of 1893 the so-called "labor laws" must form a conspicuous group by themselves. Next in interest are the new laws concerning corporate property, and last, but not least in importance, a body of legislation dealing with various departments of State and municipal finance.

New laws in Indiana and Kansas require the weekly payment of wages by corporations. Indiana requires this of mining and manufacturing companies only; and Kansas excepts all railway, farm, and dairy corporations. Ohio makes it unlawful to retain any part of the wages of minors because of presumed negligence or failure to comply with rules, or for breakage of machinery, or because of alleged incompetency to produce work in accordance with any standard of merit set up by employers. It is also forbidden employers to receive

any guarantee, bonus, money deposit, or any form of security for the faithful performance of work, observance of rules, or making good of losses by minors. Parents or guardians must furnish certificates as to the age of minors. Employers must make written agreements with all minors, stating the wages to be paid, and must furnish statements of wages due. No change in wages can be made without twenty-four hours' notice. The State inspector of workshops and factories is given special powers to secure the enforcement of this law.

The coal miners of Kansas have secured the passage of a law prohibiting the screening of coal before weighing, where wage-payments are made on the basis of the quantity of coal mined. A similar statute in Illinois* was held unconstitutional on the ground that it deprived persons, without due process of law, of the property right of making contracts. (32 *North-eastern Reporter*, 364.) The law made it impossible for a miner, even if he so desired, to contract with his employer to receive wages based on the weight of coal produced by him *after* screening, such contracts being declared by the law to be null and void. The court considered this an unwarranted use of the legislative power, inasmuch as the constitution of the State protects all men in their property rights, among which the freedom to make contracts is one of the most important. In Kansas, however, there seems to be no constitutional provision prohibiting such legislation. The provision in the constitution of the United States on the same subject has never been construed by the courts as applicable to the action of State legislatures.

The new factory law in Illinois restricts the labor of women to eight hours a day, or forty-eight hours a week; and the number of required hours must be kept posted in each factory where women are employed. Other provisions of the Illinois law deal with the employment of children. None under fourteen can be employed in any kind of manufacturing. A register of all under sixteen must be kept, and the affidavit of parent or guardian as to date and place of birth must be fur-

* See "Social and Economic Legislation in 1891," *Quarterly Journal of Economics*, January, 1892.

nished in each case. A list of the names, with ages, of such children is to be kept posted in the factory where they are employed. The factory inspectors may demand health certificates in such cases. In Indiana children under fourteen can no longer be employed in the manufacture of iron, steel, nails, metals, machinery, or tobacco. In any other kind of manufacturing it is made unlawful to work children under that age more than eight hours a day. Minnesota makes it a misdemeanor to compel children under sixteen to labor more than ten hours a day in any factory or store, or to employ them at any kind of labor outside the family before seven in the morning or after six in the afternoon.

With the exception of the Illinois law (the constitutionality of which is already being sharply contested) and the Indiana and Minnesota child labor laws, there has been no radical legislation concerning hours of labor during the year. Massachusetts has adopted the nine-hour day for manual labor employed by the State government. For street railway conductors, drivers, and motormen, ten hours' work within twelve consecutive hours is to constitute a day's work. In South Carolina an eleven-hour day was established for cotton and woollen mills. Colorado adopts the eight-hour system for State, city, county, and other public works.

California has passed a "rest day" law, requiring the setting apart of one day in seven for rest from all labor, but not specifying any particular day of the week. This is in no sense a "Sunday law," and was not designed to secure religious observance, but solely to limit the week's work to six days. Employees required to labor on Sunday will thus be entitled to one other day of the week for rest.

Several laws were passed to protect factory employees against injury from defective and dangerous machinery. In Connecticut the inspector of factories is authorized to order the use of devices to remove dust in certain operations, such as buffing, polishing, and grinding metals. Minnesota requires guards to be placed about dangerous machinery. The new employers' liability act of Indiana renders the corporations liable for injuries to employees resulting from defects in the

plant, from negligence, or from any act or omission of agents. Contracts releasing such liability are declared null and void.

The legislative campaign against the "sweat-shop" evil has been vigorously carried on in New Jersey and Illinois, as well as in New York and Massachusetts, whose statutes on the subject have been detailed in previous numbers of this *Journal*. The articles of manufacture interdicted in tenements by these laws include wearing apparel, artificial flowers, and cigars. Illinois, however, like Massachusetts and New York, permits these articles to be manufactured by members of families occupying the tenements as dwellings. New Jersey requires a written permit from the State factory and workshop inspector, or his deputy. The Illinois law (which, by the way, forms a part of the factory and workshop act to which reference has already been made in this article) insists that all tenement-house workshops used by families be kept in cleanly condition, free from vermin and contagious or infectious materials of every sort, and subject to inspection. Such workshops are to be reported to the board of health. Massachusetts also incorporates in her law a proviso that dwellings used for such purposes be placed under a system of inspection, and that families so employed be licensed. Conditions of disease must be reported to the health officers. Both Massachusetts and New York now require all tenement-made goods to be labeled. In New York it is the duty of the boards of health to disinfect unclean or unhealthy goods.

In New Hampshire a State labor bureau has just been organized. The Minnesota bureau is reorganized, the commissioner being empowered to appoint one assistant, a factory commissioner, two deputy labor commissioners, and two deputy factory commissioners, one of whom shall act as inspector of railways. The Illinois factory law provides for the appointment of a chief and assistant factory inspector and ten deputies, five of whom shall be women. New York has increased the number of deputy inspectors on duty from sixteen to twenty-four, and ten of these must be women. With a view to making the statistical information gathered by the labor

bureau more available and useful, Colorado has authorized the publication of quarterly bulletins.

In Ohio a State board of arbitration has been created, similar in all respects to the boards of New York and New Jersey.* Decisions by these boards are not binding on the parties to the controversy. They are little more than convenient agencies for the voluntary submission of labor disputes. They have hardly attained as yet to the dignity of real tribunals of justice.

As a measure of protection to the labor unions, it is made a misdemeanor on the part of employers, in California, Idaho, Illinois, Indiana, and Missouri, to discharge their employees for joining such unions, or to coerce employees to enter any agreement not to join them, as a condition of employment. In Minnesota it is made a misdemeanor to require, as a condition of employment, the surrender of any right of citizenship; and in Wyoming a curious proviso has been enacted against the discharge of employees because of their nomination to political office.

"Anti-Pinkerton" laws of varying scope and stringency continue to be enacted. Most of these are intended to prevent the importation of non-resident and alien police forces; but some prohibit the organization of armed bodies of men for any purpose, applying to residents as well as to outsiders. This is the case in Washington; and in North Carolina it is unlawful for detectives in parties of more than three to go armed.

The new "anti-trust" law of Illinois is intended to reach all corporations whose business partakes in the slightest degree of the nature of a combination to restrict competition or fix prices, with the single exception of concerns dealing in farm products at first hand. Purchasers are released from liability for purchase-money when goods are bought of a "trust." Every corporation in the State is required to report annually whether any interest is held in or business done with a

* See "Social and Economic Legislation in 1892," *Quarterly Journal of Economics*, January, 1893.

"trust" of any kind. Proceedings have been begun against a large number of companies which have failed to make such a report since the law went into effect. In New York legislation was especially directed, last winter, against combinations handling commodities of common use for the support of life and health. In California the live-stock combinations were aimed at, and in Texas the great land companies.

In Illinois and North Carolina State departments dealing, respectively, with insurance and banking, were organized during the year. Maine has adopted new regulations applying to insurance companies doing business in that State. Hereafter such companies will be required to make the same deposit as the home companies. Real estate securities must be held by trustees who are citizens of the United States. The insurance commissioner is authorized to examine the books and securities of foreign companies, and to license them to do business in the State; but the license is to be revoked in case of any combination to control rates. The minimum capital required of any fire insurance company in South Dakota is \$150,000 and a deposit of \$100,000 must be made with the State Treasurer before any business can be done. In Oregon it is now lawful for an insurance company to rebuild property destroyed by fire, in lieu of cash payment of the loss.

In South Carolina and South Dakota railroad commissioners are hereafter to be elected by the people. Nebraska and Washington have obtained maximum freight-rate laws, which would have been placed on the statute books two years earlier but for the interposition of the governor's veto. The railroads are given virtually their own rates on most kinds of freight, but increase of these is prohibited. North Dakota fixes maximum freight rates on coal mined in the State. Railroad "wrecking" is made a felony in Georgia. This offence, on the part of corporation officers and stockholders, consists in any form of plotting for the depreciation of stock in market value.

During the year three States have attempted to regulate traffic in railroad passenger tickets by legislation. In Minnesota and North Dakota all ticket agents must be authorized

and licensed by the State government. Unused tickets are to be redeemed by the companies. The Texas ticket law seems to have resulted in failure already. It required merely that agents should have certificates from the companies. It is now charged that some of the companies have furnished brokers with their certificates, to the discomfiture of rival lines.

After Jan. 1, 1898, New York will require all freight cars to be equipped with continuous power or air brakes, and locomotives with driving-wheel brakes. Automatic couplers must be used after that date on all freight cars. "Coal jimmies" will also be prohibited.

Missouri undertakes the regulation of express companies as common carriers, through the State railroad and warehouse commissioners, with whom schedules of rates must be filed by the companies. The commissioners are authorized to alter and fix maximum rates, and discrimination is forbidden.

The regulation of grain elevators has become an important topic of discussion in some of the north-western States, especially since the rise of the Populist party. What is generally regarded as an extreme position on this question was taken last winter by the Minnesota legislature, which passed a law exacting license fees from all public elevators in the State, prohibiting the pooling of earnings or business, and providing for the erection and maintenance of a State warehouse and elevator. This law was contested in the courts by the owners of elevators from whom license fees were demanded. They protested that the moneys thus required by the terms of the law to be paid in for the support of the State railroad and warehouse commission were used in maintaining a competing business establishment. The commissioners were further authorized to publish market reports, and to fix charges for the storage, inspection, weighing, and handling of grain. North Dakota also made provision for a State elevator, to be erected in Minnesota or Wisconsin. One section of the law has a proviso to the effect that no money shall be expended for construction until a cession of absolute civil jurisdiction over the tract of land on which the building is to be erected shall have been made to the State of North Dakota; but the fact seems

to have been overlooked that any such cession by one State to another would require the consent of the national Congress.

While the effort to extend the functions of State governments has been more noticeable, perhaps, in those parts of the country where the "farmers' movement" has made most headway, the tendency in the direction of enlarging municipal activities is everywhere gaining strength, East and West. This is made especially evident by the various laws lately passed for the regulation of municipal ownership of gas and electric-light plants. In dealing with this question, Connecticut has attempted to establish rules for fixing the prices to be charged to consumers. As a basis, a net profit of five per cent. on the investment is taken, allowance being made of five per cent. a year on cost for depreciation of plant. No price shall be greater than shall be sufficient to yield a net profit of eight per cent. on the cost. In fixing such a basis of price to consumers, the gas or electricity used by the city, town, or borough operating the works is to be charged to it at cost. The price is not to be changed oftener than once in three months, and any proposed change must be advertised for at least one month before it can take effect. Lighting plants can neither be erected nor purchased by municipalities in Connecticut until the matter has been submitted to popular vote, and after the establishment of such works their management is intrusted to boards of commissioners. New laws in Indiana, Minnesota, and Washington authorize cities, towns, and villages to own and operate electric-light plants, water-works, and the like. In Massachusetts municipalities already owning works of this kind may purchase connected mains, poles, and wires in adjacent cities or towns, and operate the whole system thus formed as one.

In New York legislative approval has been given to the undertaking of an extensive experiment in city building. A "model town company" has been incorporated, and Niagara County has been set apart as the field of its operations. This company is empowered to build a town or city in that county, to establish therein an industrial school and "university," to

build and operate surface and elevated street railways, electric-light and power plants, water and gas works, steam-heating and pneumatic power plants, a telephone exchange, manufacturing plants of all kinds, dwelling-houses, steam railroad lines, with passenger and freight depots, and telegraph lines, and to improve public parks and grounds. The capital stock of this corporation is limited to ten millions of dollars. This is not exactly an experiment in municipal government, for in the conduct of the enterprise the individual voter, as such, has no voice; but it is a bold and decidedly interesting attempt to prove the capacity of an incorporated company to aggregate to itself a great variety of functions of a public and *quasi*-public character.

Attempts to enact and put in force more radical road legislation in the different States are becoming more frequent from year to year. In Massachusetts a State commission is charged with the collection of statistics concerning highways and the construction of a State system. Idaho is another State which has undertaken to build State roads, providing for their cost by the issue of bonds. In Oregon and Washington highways are maintained by the counties. Missouri has adopted a so-called "local option" county road law, under which the county courts appoint the supervisors. New York also permits the supervisors of any county to adopt the county system, if they see fit to do so. A county engineer is to be appointed in such a case. Indiana makes it binding on county officers to accept and keep in repair every mile of gravel road built by private enterprise. Owners of wagons with broad tires are to receive credit, in New York and New Jersey, on their road taxes. Oregon divides her share of the United States "direct tax" refund *pro rata* among the counties, according to area, to be used for roads and bridges.

The principal changes in the tax systems of the different States made during the year had to do with methods of assessing and taxing corporations and estates. Texas has provided for an annual franchise tax of ten dollars on each corporation. Alabama imposes State license fees on all corporations, doubling those to be paid by companies applying to the legislature

for special charters. It is made one of the duties of the railroad commissioners in North Carolina to assess all the railroads in the State. In Alabama sleeping-car companies are required to pay an annual privilege tax of five hundred dollars, and one dollar for each mile of road on which the cars are operated in the State. The Territory of New Mexico requires sleeping and palace car companies to pay two and one-half per cent. on gross earnings, the proceeds of the tax to be divided equally between the Territorial government and the counties through which the cars run. Texas imposes a State tax of one-fourth of one per cent. on the capital stock of such companies employed in the State.

Alabama establishes a privilege tax on express companies, basing it on the number of miles of road operated. Maine doubles her license tax on such companies, making it one and one-half per cent. of gross receipts.

In the taxation of telephone companies widely differing methods obtain in different States. Alabama is content with a State tax of one per cent. on gross receipts. Texas levies an annual tribute of twenty-five cents on each instrument in use. Maine attempts to collect two and one-half per cent. *ad valorem* on all telephone apparatus leased from or subject to royalty for use to any corporation or person beyond the limits of the State.

Maine has adopted the following plan for the taxing of building associations: Semi-annual returns of the monthly capital dues are to be made to the State Treasurer. A tax of one-fourth of one per cent. is to be levied on such dues, payable semi-annually, with exemption from municipal taxation. The real estate of such associations may be taxed by the towns in which they are located.

Three States have enacted "collateral inheritance" tax laws during the year. California takes five per cent. of the value of all estates valued at more than \$500. The proceeds will go to the State school fund. In Maine the rate is fixed at two and one-half per cent. In Ohio all estates of less than \$10,000 are exempted, and the rate of tax on those of greater value is three and one-half per cent. In Minnesota a constitutional

amendment authorizing the taxation of inheritances is to be submitted to the people next year.

Washington is the last State to adopt the "listing system" for the assessment of personal property. Oregon will hereafter refuse any deduction of indebtedness in the assessment of property. New York exempts from taxation all real property of religious, charitable, and educational corporations that is used for the purposes of the organization. The various recommendations to the last New York legislature relative to a reconstruction of the tax system of the State had no practical result.

WILLIAM B. SHAW.

NOTES AND MEMORANDA.

THE list of *quasi-encyclopædic* compendia on political science which the students of that subject owe to the industry of the Germans is to be enlarged by the *Hand- und Lehrbuch der Staatswissenschaften*, edited by Dr. K. Frankenstein, and published by the firm of Hirschfeld in Leipzig. The first part, and the only one published so far, is Professor J. Lehr's *Grundbegriffe und Grundlagen der Volkswirtschaft*, described as an introduction to the study of political science.

STILL another is added to the already numerous series of monographs on economic subjects, in the *Münchener Volkswirtschaftliche Studien*, edited by Professors Brentano and Lotz, of which the first three numbers are noted in the bibliography of the quarter. The name indicates that the *Studien* will present the results of work done in the economic seminary at Munich; and in this case, as in others, it is not easy to say how far the new collection owes its existence to professional and university rivalry, and how far to the desire to promote the growth of knowledge and the spirit of investigation.

THE Department of Labor at Washington will issue shortly its eighth annual report and two special reports. The annual report will be on industrial education. Of the special reports, one, by Mr. J. G. Brooks, will consider the system of compulsory insurance for workmen in Germany and its working; the other, by Dr. E. R. L. Gould, will treat of the housing of laborers in different countries. The Department has in hand the ninth annual report, of which the subject will be the building and loan associations of the United States, and is also at work on a special report regarding the slums

of large cities, especially New York, Philadelphia, Baltimore, and Chicago. The student of social subjects and the advocate of social reform are alike indebted to Commissioner Wright and his able assistants for the wealth of valuable material which the Department puts at their disposal.

IN the *Preussische Jahrbücher* for October and November Professor Adolf Wagner makes his contribution to the discussion of the new phase which the silver situation has assumed with the suspension of free coinage in India and the cessation of the American purchases. He writes, naturally, with reference chiefly to Germany, but with an eye to the international situation also. As to the monetary *régime* in Germany, he finds cause for anxiety from the presence of the over-valued thalers and the imperial treasury notes (*Reichskassenscheine*). The thalers, he thinks, should be withdrawn, and the treasury notes converted into bank-notes. To the non-German reader, and especially to the American, the dangers which he apprehends from these forms of credit money serve rather to show how much less top-heavy is the condition of the monetary structure in Germany than in other countries. If the volume of thalers and government paper is excessive in Germany, where, after all, the proportion of gold to all the other forms of cash is as two to one, what is the situation in the United States? It is true that the dangers which Professor Wagner anticipates are largely those that would arise in case of a great war; but, even with possibilities of this sort, Germany can await the further march of events with comparative composure.

All this, however, is set forth by Professor Wagner from the simple technical point of view, with regard only to the consistency and solidity of a monetary system resting on the gold standard. Whether the gold standard, and that only, should be accepted and carried out to the end, presents other and wider questions. The larger political and social aspects of the case seem to him still to speak for some form of international bimetallism. He recounts summarily the familiar

reasoning as to the struggle for gold, the high rates of discount, the decline in prices, and the burden on debtors, and lays stress also on an argument more commonly used on the Continent than in English-speaking countries, as to the handicap under which the gold standard countries will labor in international competition for the market. It is noteworthy that not only arguments of this sort, but considerations of military policy, seem to him to work against the gold standard; although, to the observer not in the current of Continental struggles, the imminent possibility of war seems to speak rather against than for the likelihood of permanent international agreements on coinage. At all events, he concludes that international bimetallism still remains the part of sound policy, and intimates further that a movement in that direction, if heartily supported by Germany, would not be hopelessly impracticable.

The future alone can show how far reasonings and predictions of this sort rest on solid ground. The future, too, is likely to bring the proof. The *status quo* will probably be retained for some time to come, with gold as the basis of the circulating medium in the advanced countries. The existing masses of over-valued silver will be retained or gradually replaced by other forms of credit money. The obstacles to any international agreement are no less than they were before, and the gold standard is likely to have a long trial. Only if the evils of this state of things prove in the long run as real and serious as is predicted by Professor Wagner and those who think with him, are we likely to have any effective movement toward a change.

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APPENDIX.

PANIC OF 1893.

IMPORTS AND EXPORTS OF THE UNITED STATES FROM OCTOBER, 1891, TO OCTOBER, 1893.

		EXPORTS, Mdse.	IMPORTS, Mdse.	EXPORTS, Gold.	IMPORTS, Gold.	EXCESS EXPORTS, Gold.
1891	October	\$102,877,243	\$66,836,259	\$809,595	\$16,897,947	
	November	110,103,537	64,890,507	381,949	8,871,717	
	December	119,935,896	69,448,023	254,501	6,018,851	
1892	January	100,138,336	62,719,550	246,466	552,014	
	February	86,638,137	65,383,270	6,507,180	2,826,962	\$3,680,218
	March	81,829,702	86,570,533	6,309,956	3,084,406	3,325,550
	April	75,954,962	76,341,449	7,521,823	487,041	7,034,782
	May	69,703,479	68,696,171	3,854,222	591,159	3,263,063
	June	64,888,337	72,016,568	17,129,503	494,026	16,635,477
	July	58,401,758	65,670,021	10,782,638	542,440	10,240,198
	August	64,846,905	71,242,385	6,049,981	333,282	5,716,699
	September	62,908,483	67,466,062	3,627,663	1,303,536	2,324,127
	October	87,860,919	71,999,550	484,250	3,118,330	
	November	97,703,824	67,699,040	1,138,647	2,577,212	
	December	87,545,818	65,126,356	12,879,727	1,540,538	11,339,189
1893	January	67,673,669	75,168,267	12,584,396	370,843	12,213,553
	February	59,931,984	72,702,238	14,245,607	1,257,539	12,988,068
	March	66,516,571	86,663,524	8,113,428	6,608,437	1,504,991
	April	59,873,346	77,013,701	19,148,964	803,985	18,344,979
	May	68,955,348	75,955,234	16,914,317	1,708,557	15,205,760
	June	65,446,569	69,694,544	2,711,226	1,009,682	1,701,544
	July	69,113,857	63,186,067	174,212	5,950,613	
	August	73,683,731	58,644,220	949,502	41,572,031	
	September	72,027,048	46,302,387	1,436,862	6,678,945	
	October	87,688,016	51,769,234	511,018	1,583,937	

PRICES OF TWENTY-FOUR ACTIVE STOCKS IN NEW YORK, 1890-1898.

	Highest in 1890.	Lowest in Nov. or Dec., 1890.	Lowest in 1891.	Highest in 1891.	Highest in 1892.	Lowest in 1892.	Highest prior to May, 1893.	MAY.		JUNE.		JULY.		AUGUST.		SEPT.		OCT.	
								Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.
Chicago, Burlington & Quincy, . . .	\$1111	\$90	\$793	\$110	\$109	\$93	\$103	\$92	\$81	\$89	\$82	\$87	\$89	\$89	\$71	\$87	\$79	\$87	\$71
Chicago, Milwaukee & St. Paul, . .	79	44	69	82	84	74	83	78	68	70	68	72	69	68	60	63	67	68	66
Chicago, Rock Island & Pacific, . .	86	61	63	80	84	70	80	81	73	73	73	73	61	63	64	67	67	68	66
Chicago & Northwestern, . . .	117	88	102	116	121	104	116	111	103	103	103	103	84	89	84	101	93	107	93
Atchafson, Topoka & Santa Fe, . .	80	23	24	41	46	32	38	31	23	26	19	22	12	13	13	22	17	23	16
Denver & Rio Grande, . . .	21	18	13	21	23	18	18	18	13	14	14	15	7	9	9	11	8	10	8
Northern Pacific, . . .	39	16	20	20	20	18	22	18	12	12	12	12	7	9	9	11	8	10	8
Union Pacific, . . .	89	40	32	82	82	62	80	80	23	30	24	23	10	10	10	24	19	21	16
Lake Shore & Michigan Southern, . .	114	101	106	127	140	120	134	128	123	123	113	122	104	109	109	123	117	129	119
New York Central, . . .	111	92	117	117	119	104	114	106	99	103	93	102	92	101	101	104	100	104	100
Central of New Jersey, . . .	29	16	17	33	34	23	32	30	17	16	16	17	7	10	10	12	12	10	10
Delaware, Lackawanna & Western, . .	138	90	139	122	140	121	127	113	104	110	110	104	84	101	101	112	107	120	108
Philadelphia & Reading, . . .	149	123	118	146	167	133	156	142	134	149	137	157	127	140	133	150	133	171	149
Illinois Central, . . .	176	120	119	141	149	138	159	137	120	130	119	121	102	114	106	121	111	131	119
Louisville & Nashville, . . .	164	28	28	43	65	38	64	38	104	104	16	12	13	13	13	21	14	23	16
Norfolk & Western Preferred, . . .	82	69	65	87	89	73	84	72	62	68	62	67	59	63	63	64	61	68	58
American Cotton Oil, . . .	86	45	45	87	87	73	84	72	62	68	62	67	59	63	63	64	61	68	58
American Sugar Refinery, . . .	34	13	15	33	34	23	31	23	25	25	23	23	24	24	24	24	24	24	20
National Lead, . . .	36	23	24	24	24	23	24	23	23	23	23	23	24	24	24	24	24	24	20
Tennessee Coal & Iron, . . .	29	13	14	21	21	18	22	20	16	16	16	17	10	10	10	16	14	14	14
Adams Express, . . .	149	124	124	150	153	134	159	130	120	140	140	139	130	130	130	130	130	130	130
Western Union, . . .	87	71	76	83	100	82	101	85	81	84	79	83	67	73	73	84	78	83	80

WEEKS ENDING	RATES FOR CALL LOANS.					RATES FOR TIME LOANS.					Bankers demand Sterling Bid Rates. Actual		No. Business Failures.		
	1893 N.Y.	1892 N.Y.	1893 Boston.	1893 Chicago.	1892 Chicago.	1893 N.Y.	1892 N.Y.	1893 Boston.	1892 Boston.	1893 Chicago.	1892 Chicago.	1893 N.Y.	1892 N.Y.	1893	1892
Jan. 6	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	313	339
" 13	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	301	379
" 20	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	300	405
Feb. 3	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	302	249
" 10	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	271	279
" 17	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	223	214
" 24	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	205	260
Mar. 3	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	202	227
" 10	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	217	247
" 17	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	184	251
" 24	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	228	219
" 31	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	202	191
April 7	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	170	164
" 14	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	186	165
" 21	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	196	185
" 28	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	206	206
May 5	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	248	147
" 12	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	219	184
" 19	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	255	156
" 26	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	247	177
" 30	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	214	163
June 6	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	289	163
" 13	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	303	161
" 20	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	360	159
" 27	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	319	102
July 4	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	388	166
" 11	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	527	179
" 18	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	489	163
" 25	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	459	155
Aug. 1	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	409	187
" 8	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	456	169
" 15	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	369	138
" 22	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	379	146
" 29	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	300	143
Sept. 5	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	316	174
" 12	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	333	143
" 19	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	365	198
" 26	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	406	191
Oct. 3	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	340	216
" 10	5 1/2	5 1/2	7 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	4 1/2	4 1/2	329	220

* Plus a commission of a fraction of 1 per cent. per diem, according to the pressure of demand.

CHIEF ITEMS NEW YORK WEEKLY BANK STATEMENT,— 000'S OMITTED.							WEEKLY BANK CLEARINGS TOTALS.— ALL CITIES.	
WEEK ENDING	DEPOSITS.		LOANS.		RESERVES.		1893.	1892.
	1893.	1892.	1893.	1892.	1893.	1892.		
Jan. 7,	\$455,367	\$477,382	\$441,283	\$440,289	\$122,784	\$138,306	\$1,337,506,000	\$1,455,922,000
" 14,	462,870	486,302	439,875	445,833	131,328	146,174	1,370,808,000	1,409,180,000
" 21,	479,963	497,472	447,074	447,202	142,520	157,371	1,464,283,000	1,290,169,000
" 28,	488,779	509,514	455,179	453,582	145,338	163,399	1,373,829,000	1,208,579,000
Feb. 4,	495,475	515,376	464,910	460,653	142,522	162,285	1,391,099,000	1,319,874,000
" 11,	491,747	521,571	464,284	466,291	140,177	164,046	1,247,506,000	1,349,331,000
" 18,	483,013	531,261	462,518	476,571	134,509	163,673	1,252,252,000	1,389,212,000
" 25,	472,706	531,838	458,579	480,800	127,561	159,954	1,215,938,000	1,072,468,000
Mar. 4,	462,004	533,578	452,917	488,675	122,004	164,686	1,370,506,000	1,216,826,000
" 11,	447,209	531,976	444,775	492,934	116,445	149,190	1,301,830,000	1,260,826,000
" 18,	441,961	531,308	439,304	494,659	116,529	149,776	1,231,134,000	1,200,386,000
" 25,	439,504	530,120	434,468	490,435	119,119	150,547	1,227,224,000	1,149,555,000
April 1,	439,330	528,447	433,524	489,725	120,405	150,129	1,044,292,000	1,083,298,000
" 8,	438,698	528,056	434,204	490,876	118,887	147,853	1,198,742,000	1,241,890,000
" 15,	439,527	531,882	431,453	493,629	120,054	148,759	1,211,734,000	1,217,878,000
" 22,	440,794	533,995	428,908	491,926	124,981	153,031	1,242,015,000	1,043,193,000
" 29,	432,224	535,778	425,990	493,078	120,212	153,980	1,077,422,000	1,088,019,000
May 6,	433,974	534,524	425,728	493,886	121,328	147,704	1,378,638,000	1,280,683,000
" 13,	434,865	530,736	420,827	492,053	126,511	148,456	1,370,582,000	1,231,297,000
" 20,	433,683	534,495	416,961	490,946	134,093	153,179	1,221,547,000	1,232,899,000
" 27,	436,724	536,100	415,901	488,813	134,621	158,637	1,043,014,000	1,146,805,000
June 3,	431,411	542,061	416,690	492,701	128,840	159,195	898,408,000	1,019,465,000
" 10,	418,925	542,083	414,400	493,669	119,152	159,066	1,156,384,000	1,184,098,000
" 17,	406,536	543,663	410,700	496,564	110,410	158,699	1,031,364,000	1,138,301,000
" 24,	398,064	508,488	405,986	495,230	104,998	154,494	1,033,339,000	1,104,223,000
July 1,	397,979	534,608	413,650	494,464	100,746	151,738	935,591,000	1,031,685,000
" 8,	398,679	530,730	418,685	492,187	94,587	148,250	1,051,402,000	1,140,801,000
" 15,	394,174	523,862	413,499	482,486	94,274	151,172	1,000,390,000	1,140,356,000
" 22,	390,476	524,047	409,191	480,378	96,362	154,075	976,445,000	1,052,306,000
" 29,	382,177	529,104	406,486	484,933	91,242	156,507	887,988,000	991,715,000
Aug. 5,	372,945	528,462	408,717	488,777	79,218	150,914	973,880,000	1,078,137,000
" 12,	372,203	525,231	411,795	489,771	76,505	147,082	799,718,000	1,000,022,000
" 19,	370,302	524,412	406,540	492,054	80,529	143,481	732,542,000	1,009,774,000
" 26,	370,479	517,081	403,607	490,667	85,882	139,158	677,670,000	1,008,610,000
Sept. 2,	374,010	509,005	400,169	487,101	91,935	134,881	651,152,000	965,101,000
" 9,	373,787	500,128	396,965	482,120	96,413	129,814	734,126,000	1,126,238,000
" 16,	377,273	491,836	392,880	475,311	104,920	127,838	792,853,000	1,111,001,000
" 23,	383,447	480,522	392,145	466,657	113,596	125,181	801,242,000	1,191,409,000
" 30,	390,980	476,598	392,494	464,905	121,865	123,542	772,068,000	1,037,541,000
Oct. 7,	400,195	472,419	393,141	463,298	128,677	120,041	900,846,000	1,303,352,000
" 14,	412,456	468,183	395,716	459,525	137,010	117,584	903,810,000	1,181,662,000
" 21,	421,686	460,885	394,039	452,333	148,062	117,553	934,566,000	1,374,420,000
" 28,	433,261	457,050	397,124	449,112	157,102	118,156	928,141,000	1,174,515,000

**COMPARISONS OF PRICES OF LEADING FOOD AND OTHER STAPLE PRODUCTS AT NEW YORK CITY (INCLUDING BAR SILVER),
EACH WEEK, JANUARY 1 TO NOVEMBER 1, 1893, AND 1892.**

WEEK ENDING	FLOUR, Straight Sig.		WHEAT, No 2 Red.		COTTON.		PRINT Cloths.		WOOL, Ohio.		PORK, Mess.		LARD, Western.		BUTTER, Cream.		CHEESE.		SUGAR, Granulated.		COFFEE, Rio.		IRON, Pig.		B. SILVER.	
	1893.	1892.	1893.	1892.	1893.	1892.	1893.	1892.	1893.	1892.	1893.	1892.	1893.	1892.	1893.	1892.	1893.	1892.	1893.	1892.	1893.	1892.	1893.	1892.	1893.	1892.
Jan. 6.	\$3.50	\$4.70	\$0.80	\$1.02	\$0.07	\$0.04	\$0.03	\$0.26	\$0.28	\$17.00	\$9.75	\$11.00	\$5.57	\$0.26	\$0.23	\$0.10	\$0.10	\$0.04	\$0.04	\$0.17	\$0.13	\$15.00	\$16.70	\$0.82	\$0.95	
" 13.	3.60	4.50	.79	.91	.07	.04	.03	.26	.28	18.25	9.75	11.20	6.56	.27	.25	.10	.11	.04	.04	.17	.13	14.75	16.00	.83	.93	
" 20.	3.50	4.50	.78	1.02	.09	.07	.03	.26	.28	18.50	9.75	11.20	6.70	.26	.24	.10	.11	.04	.04	.17	.13	14.75	16.00	.84	.93	
Feb. 3.	3.50	4.50	.80	1.02	.09	.07	.03	.28	.28	20.50	9.75	11.85	6.82	.26	.25	.11	.11	.04	.04	.18	.14	14.75	16.00	.84	.91	
" 10.	3.50	4.45	.81	1.03	.09	.07	.03	.29	.28	21.00	9.75	13.00	6.82	.25	.24	.11	.11	.04	.04	.18	.15	14.75	16.75	.84	.90	
" 17.	3.50	4.45	.79	1.08	.09	.07	.03	.29	.28	21.00	9.75	13.00	6.82	.24	.24	.10	.11	.04	.04	.18	.14	14.75	16.75	.84	.91	
" 24.	3.50	4.45	.79	1.04	.09	.07	.03	.29	.27	20.75	9.75	12.85	6.75	.24	.24	.11	.11	.04	.04	.18	.15	14.75	16.75	.84	.90	
March 3.	3.50	4.45	.78	1.04	.09	.07	.03	.29	.27	20.75	9.75	13.10	6.75	.24	.24	.11	.11	.04	.04	.18	.15	14.75	16.75	.83	.90	
" 10.	3.50	4.45	.78	1.02	.09	.07	.03	.29	.27	20.75	9.75	12.65	6.75	.24	.24	.11	.11	.04	.04	.18	.15	14.75	16.75	.83	.90	
" 17.	3.50	4.25	.75	.99	.08	.06	.03	.29	.27	19.50	11.00	11.60	6.50	.30	.22	.11	.11	.04	.04	.18	.14	14.75	16.00	.83	.88	
" 24.	3.50	4.25	.75	.96	.08	.06	.03	.29	.27	18.75	11.00	11.60	6.50	.30	.22	.11	.11	.04	.04	.18	.14	14.75	16.00	.83	.88	
April 7.	3.50	4.10	.74	.87	.08	.06	.03	.29	.27	17.50	11.00	10.40	6.50	.28	.18	.11	.11	.04	.04	.17	.14	14.75	16.00	.83	.87	
" 14.	3.50	4.10	.77	.96	.08	.06	.03	.29	.26	17.50	11.00	10.37	6.50	.23	.17	.11	.11	.04	.04	.17	.14	14.75	16.00	.83	.86	
" 21.	3.45	4.10	.76	.96	.07	.07	.03	.29	.26	18.25	11.00	10.25	6.37	.27	.18	.11	.10	.05	.04	.16	.13	14.50	15.75	.83	.86	
" 28.	3.45	4.10	.76	.92	.07	.07	.03	.28	.26	21.00	10.50	10.55	6.50	.30	.18	.11	.08	.05	.04	.15	.12	14.50	15.75	.83	.87	
May 5.	3.45	4.10	.77	.96	.07	.07	.03	.28	.26	20.50	10.50	10.60	6.50	.28	.17	.11	.09	.05	.04	.15	.12	14.50	15.75	.83	.87	
" 12.	3.50	4.10	.79	.96	.07	.07	.03	.28	.26	20.75	10.50	11.10	6.55	.26	.17	.09	.09	.05	.04	.16	.13	14.50	15.75	.84	.88	
" 19.	3.50	4.10	.77	.99	.07	.07	.03	.27	.26	22.00	11.00	11.00	6.66	.21	.17	.09	.09	.05	.04	.16	.13	14.50	15.75	.83	.88	
" 26.	3.50	4.10	.76	.90	.07	.07	.03	.26	.26	22.00	11.00	10.95	6.62	.20	.17	.09	.09	.05	.04	.16	.13	14.50	15.75	.82	.87	
June 2.	3.50	4.10	.74	.97	.07	.07	.03	.26	.25	22.50	11.50	10.60	6.62	.17	.16	.09	.09	.05	.04	.17	.13	14.50	15.75	.83	.88	
" 9.	3.40	4.10	.73	.96	.07	.07	.03	.25	.26	20.75	12.00	10.15	6.70	.17	.15	.08	.08	.05	.04	.17	.13	14.50	15.75	.83	.89	
" 16.	3.30	4.00	.73	.90	.08	.08	.03	.24	.26	20.50	12.00	10.07	6.72	.17	.16	.08	.07	.05	.04	.17	.13	14.50	15.75	.83	.89	
" 23.	3.40	4.00	.72	.90	.08	.08	.03	.24	.26	19.60	11.75	9.85	6.82	.17	.16	.08	.07	.05	.04	.16	.13	14.50	15.75	.81	.89	
" 30.	3.40	4.00	.68	.88	.07	.07	.03	.23	.26	19.00	12.00	9.70	6.90	.21	.18	.08	.07	.05	.04	.16	.13	14.50	15.00	.83	.88	
July 7.	3.35	4.00	.71	.87	.08	.08	.03	.23	.23	26.00	12.00	10.30	7.30	.18	.18	.08	.08	.05	.04	.17	.13	14.50	14.00	.72	.87	
" 14.	3.35	4.00	.73	.82	.08	.08	.03	.23	.23	18.50	13.00	10.00	7.50	.18	.17	.08	.07	.05	.04	.17	.13	14.50	14.00	.70	.86	
" 21.	3.20	4.00	.70	.86	.08	.08	.03	.23	.26	18.00	13.25	10.05	7.60	.18	.18	.08	.07	.05	.04	.17	.13	14.50	14.00	.70	.85	
" 28.	3.15	4.00	.68	.83	.06	.06	.03	.23	.26	18.00	13.20	9.70	7.62	.17	.17	.08	.07	.05	.04	.17	.13	14.50	14.00	.70	.85	
Aug. 4.	3.15	4.00	.67	.81	.07	.07	.02	.23	.26	15.00	13.75	8.15	8.05	.19	.17	.08	.07	.05	.04	.16	.13	14.50	14.00	.70	.82	
" 11.	3.15	4.00	.68	.82	.07	.07	.02	.23	.26	14.50	13.75	8.00	8.12	.21	.19	.08	.07	.05	.04	.16	.14	14.50	14.00	.75	.82	
" 18.	3.15	4.00	.67	.80	.07	.07	.02	.23	.25	14.50	13.50	8.57	8.00	.24	.19	.08	.07	.05	.04	.16	.15	14.50	14.00	.74	.83	
" 25.	3.15	3.85	.66	.79	.07	.07	.02	.23	.26	16.00	12.50	8.40	7.85	.25	.19	.08	.07	.05	.04	.16	.15	14.50	14.00	.74	.83	
Sept. 1.	3.15	3.75	.68	.76	.08	.07	.02	.23	.26	16.00	11.75	8.40	7.70	.24	.18	.08	.07	.05	.04	.16	.15	14.50	14.00	.74	.83	
" 8.	3.15	3.75	.70	.78	.08	.07	.02	.23	.26	17.00	11.50	9.10	7.67	.26	.20	.09	.08	.05	.04	.16	.15	14.50	14.00	.74	.83	
" 15.	3.00	3.75	.73	.79	.08	.07	.02	.23	.26	16.00	11.00	9.85	7.50	.27	.21	.10	.08	.05	.04	.16	.15	14.50	14.00	.74	.83	
" 22.	3.00	3.75	.72	.79	.08	.07	.02	.23	.26	17.50	11.75	10.00	7.65	.26	.20	.09	.08	.05	.04	.16	.15	14.50	14.00	.74	.83	
" 29.	3.00	3.70	.72	.79	.08	.07	.02	.23	.26	18.00	12.00	9.85	7.50	.27	.21	.10	.08	.05	.04	.16	.15	14.50	14.00	.74	.83	
Oct. 6.	3.00	3.65	.70	.80	.08	.08	.02	.23	.26	19.00	12.75	10.30	8.65	.29	.22	.10	.08	.05	.04	.16	.15	14.50	14.00	.74	.86	
" 13.	3.00	3.65	.68	.79	.08	.08	.02	.23	.26	19.50	12.75	10.30	8.65	.27	.25	.10	.08	.05	.04	.16	.15	14.50	14.00	.73	.86	
" 20.	3.00	3.65	.68	.77	.08	.08	.02	.23	.26	19.75	13.00	10.30	8.95	.27	.25	.10	.08	.05	.04	.16	.15	14.50	14.00	.73	.86	
" 27.	3.00	3.65	.69	.74	.08	.08	.02	.23	.26	19.00	13.00	10.50	8.90	.26	.22	.11	.08	.05	.04	.16	.15	14.50	14.00	.72	.86	

* India stopped free coinage of silver; on June 29 silver touched 68 cts., at New York City.

THE NUMBER OF THE UNEMPLOYED.

The following table prepared to accompany the article on page 168 shows in the first column the estimates of the numbers of the unemployed which the writer, relying often on the judgment of a single correspondent, but in the case of the larger cities taking into account the several statements received, is disposed to adopt. The second column shows the estimates telegraphed December 22 to *Bradstreet's* from correspondents in the same cities. The third column shows *Bradstreet's* estimates from certain cities from which the writer of this article has received no numerical statement.

		<i>Bradstreet's.</i>		<i>Bradstreet's.</i>	
MASSACHUSETTS.					
Boston,	38,000	30,000	Taunton,	1,500	
Brockton,	1,000		Fall River,	500	
			Springfield,	600	
			Lowell,	3,000	
			Pittsfield,	1,600	
CONNECTICUT.					
New Haven,	5,000	5,000	Danbury,	4,000	
			Norwich,	2,000	
			Hartford,	3,000	
RHODE ISLAND.					
Providence and suburbs,	10,000	10,000			
Pawtucket,	1,000				
MAINE.					
			Lewiston,	1,000	
			Auburn,	700	
NEW HAMPSHIRE.					
			Manchester,	500	
VERMONT.					
			Burlington,	800	
NEW YORK.					
New York,	85,000	80,000	Brooklyn,	35,000	
Rochester,	10,000	5,500	Buffalo,	15,000	
Newburg,	1,000		Albany,	11,000	
Kingston,	800		Troy,	25,000	
Oswego,	250		Syracuse,	10,200	
Utica,	8,000	3,000	Binghamton,	3,500	

	<i>Bradstreet's.</i>		<i>Bradstreet's.</i>	
NEW JERSEY.				
Newark,	15,000	12,000	Paterson,	10,600
Elizabeth,	2,000	2,000	Passaic,	2,650
			Trenton,	2,000
PENNSYLVANIA.				
Philadelphia,	50,000	62,500	York,	1,500
Pittsburg,	16,000	75,000	Lancaster,	2,000
Allegheny,	6,000		Harrisburg,	2,500
Reading,	5,000	1,500	Allentown,	700
McKeesport,	6,000		Bethlehem,	2,000
Pottsville,	2,000		Shamokin,	1,400
MARYLAND.				
Baltimore,	10,000	20,000		
VIRGINIA.				
			Richmond,	1,500
			Norfolk,	1,600
			Lynchburg,	500
WEST VIRGINIA.				
Wheeling,	3,000			
OHIO.				
Cincinnati,	7,000	6,000	Springfield,	1,500
Cleveland,	15,000	25,000	Toledo,	4,000
Columbus,	4,000	3,000		
Dayton,	1,000	5,500		
Zanesville,	1,000			
INDIANA.				
Indianapolis,	5,000	5,000	Evansville,	5,000
Terre Haute,	2,200	1,450	Fort Wayne,	1,000
ILLINOIS.				
Chicago,	100,000	65,000	Aurora,	1,100
Joliet,	5,000	4,000		
MICHIGAN.				
Detroit,	25,000	75,000	Grand Rapids,	5,000
Muskegon,	1,000			
WISCONSIN.				
Milwaukee,	18,000	16,000	Superior,	1,000
MINNESOTA.				
Minneapolis,	6,000	3,500		
St. Paul,	3,200	3,000		
Duluth,	2,000	1,500		
KENTUCKY.				
Covington,	2,000		Louisville,	16,000

	<i>Bradstreet's.</i>		<i>Bradstreet's.</i>	
TENNESSEE.				
Chattanooga,	300			
Nashville,	1,000	2,000		
Memphis,	1,000	1,500		
SOUTH CAROLINA.				
Spartanburg,	80		Charleston,	500
GEORGIA.				
Atlanta,	1,800	3,000	Savannah,	3,000
FLORIDA.				
Jacksonville,	700			
ALABAMA.				
Birmingham,	1,000	3,000		
MISSISSIPPI.				
Vicksburg,	1,000			
LOUISIANA.				
			New Orleans,	240
TEXAS.				
			Fort Worth,	125
			Galveston,	1,600
			Dallas,	1,500
ARKANSAS.				
Little Rock,	1,000	1,000		
MISSOURI.				
St. Louis,	20,000	30,000	Kansas City,	1,500
St. Joseph,	2,300	2,500		
NEBRASKA.				
Omaha,	2,000	700	Lincoln,	2,800
IOWA.				
			Burlington,	1,000
KANSAS.				
Atchison,	100			
OKLAHOMA.				
Guthrie,	300			
NORTH DAKOTA.				
Bismarck,	300			
SOUTH DAKOTA.				
Sioux Falls,	50			
MONTANA.				
Butte City,	4,000		Helena,	7,000
Great Falls,	200			

	<i>Bradstreet's.</i>		<i>Bradstreet's.</i>	
COLORADO.				
Denver,	3,000	1,000		
CALIFORNIA.				
San Francisco, . . .	8,000	7,000	Los Angeles, . . .	2,000
Sacramento, . . .	300	200		
OREGON.				
			Portland,	1,500
WASHINGTON.				
Tacoma,	1,500	2,500		
Spokane,	700	1,100		
	<u>523,080</u>	<u>581,950</u>		<u>195,215</u>

Taking the 38 cities for which estimates are given both by *Bradstreet's* and by the writer, the total number out of employment is, according to *Bradstreet's* estimates, 581,950; according to the writer's estimates, 491,000.

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THE
QUARTERLY JOURNAL
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APRIL, 1894

A UNIVERSAL LAW OF ECONOMIC VARIATION.

ONE law governs economic life, and theories old and new contain partial expressions of it. The theory of value rests on one fragment of the general law, and the theory of rent on another. It acts in consumption, and makes the "final increment" of a particular article less useful than earlier increments. It acts also in production, and makes the final increment of an industrial agent less fruitful than earlier ones. Value depends on final utility; and shares in distribution depend on final productivity. Interest is fixed by the product of the final increment of capital, and wages are determined by the product of the final increment of labor. The value of goods, on the one hand, and the incomes of the men also make the goods, on the other, depend on the same general law.

Classical theories recognized so much of the action of this law in production as was involved in the study of diminishing returns from land under tillage. The theory of rent is based on this partial application of a comprehensive principle. A fuller application is needed. Labor, as

applied in successive increments, not to land only, but to productive wealth in all its forms, yields diminishing returns; and so does capital, as it is used in enlarging quantities by a fixed working force. There are other diminishing returns and other surpluses to be studied than those afforded by agricultural land. All through the operation of production are to be seen the effects of a law of lessening returns, and the fact of surpluses akin to rent.

Opposite in kind are consumption and production. Nature spends itself on man in the one process, and man spends himself on nature in the other. One and the same is the law that governs the results realized in the two cases. It may be called a law of variation of economic results; and, if it were stated in its entirety, it would give unexpected unity and completeness to the science of Economics. It would explain at the same time both value and distribution.

Consumption is a process that yields subjective returns. They are measured in the sensibilities of men, and are the ultimate objects of the production itself. The immediate objects of production are the material things that affect the consumer's sensibilities. These things are objective. Man acting on man through matter,—such is the whole economic process. How much can be gained by the whole of it? is the practical question to be answered. The gain depends on the benefit that a product will afford to a man when he gets it, and also on the number of products which he can get. This is saying that it depends on the utility of the goods, and on the productivity of the agents that create them. It depends on the two variations that are governed by this law.

Final utility itself has been studied in a too limited way. In the case that is usually cited, one commodity is taken, and, in imagination, is given in increasing quantity to one consumer. The successive units of it then do less and less for him. Bread given to a man in a succession of

slices nourishes, pleases, and ultimately gluts him. If he must eat it, the n^{th} slice is worth nothing to him, and the following ones less than nothing. Coats of one kind bestowed on a man one after another would soon lose their power to benefit him. The fourth might be of so little use that a tramp might have it for the asking. Duplicate copies of the same book or of the same picture would encumber the shelves and the walls; and their room would be better than their presence. Very abrupt is the descent of the "utility curve" that, in graphic representation, expresses the lessening service that successive units of things of exactly the same kind are capable of rendering. Vary the articles in kind, and you have a different result. Change the weight, the color, and the cut of the successive coats, and the man will be glad to have more than five of them. Give him books that differ from each other, and he may strain the storage capacity of his house to accommodate them. By changing the quality of the articles offered you appeal to different wants; and, as long as there are in man's sentient nature wants still to be satisfied, there is no reason why he should stop accepting what you offer. If two coats are alike in all respects but weight, the thicker garment satisfies just one want that is not satisfied by the other. It will be purchased, perhaps, for the sake of that single utility. Clothing in general, not confined to garments of any kind, shows a gradually descending utility curve. Food in general diminishes in utility far less abruptly than does bread. Duplicate nothing: add to potatoes bread, then meat, pastry, fruit, and the refined products of the French cuisine, and you will find the diminution of the utility of successive increments far less rapid than is the diminution of the utility of any one thing. Where we vary the quality of the second increment of an article offered to a consumer, we virtually offer to him a different article. We render to him a new and distinct service.

It is probably true that the theory of value has not taken due account of the abrupt decline in the utility of one article when successive units of it, wholly unchanged in quality, are offered to one consumer. The gently descending utility curves that graphic representations usually present tell what is true of a genus of articles rather than of a single one. They tell, also, what may be true of a raw material that is capable of being put into many kinds of finished goods. Oak lumber offered for sale foot after foot may have a utility that diminishes quite gradually. It can be wrought into tables, chairs, mantles, book-cases, doors, etc. If its use were confined to the making of dining tables of one pattern, the utility of the lumber itself would soon be slight. Raw materials, however, are not consumers' goods, and should not figure at all in this part of the study. They have productivity, but none of the utility of which we are now speaking.

A correction needs to be made in the theory of value by reason of the vague way in which the successive increments of an article, presumably of one kind, are in reality conceived. This is not the only correction that is here to be made. We have undertaken to generalize the law that is at the basis of the theory of value. In reality, it is all-comprehensive. The first generalization to be made consists in applying the law not to single articles, but to consumers' wealth in all its forms. Give to a man not coats, but "dollars," one after another, and the utility of the last will be less than that of any other. A dollar means command of a quantity of consumers' wealth indeterminate in its form. Wealth as such loses its specific utility if you give it, unit after unit, to a single consumer. To apply the law of diminishing utility to a raw material, or to a genus of consumers' goods, such as food, under the impression that one is applying it to a single article of consumers' wealth, is unintelligent; but to apply it, for a purpose, to the largest genus of unsalable goods that can

be made,—that is, to consumers' wealth in general,—is to take a scientific step in advance. The more wealth a man has for personal use, the less is its specific value to him. Its usefulness per unit is diminished.

Offer, for a day's consumption, not bread only, but a miscellany of articles for food, and a larger miscellany of articles for the promotion of health and enjoyment, and you offer a day's stipend of general wealth. It may be presented in increments; but each of these will be a composite of many things. For a reason that will appear the later increments of general wealth consumed by one person are more varied in their composition than the earlier ones. They contain more elements. Very many and very diverse are the articles that constitute the last increment of general wealth that a consumer devotes to his personal use.

Let us take, for example, the consumption of a year, and see what it includes. An article or two for food may constitute the first or most necessary element in it. Plain clothing may constitute the second. Rude shelter, an improvement in the food, and some fuel for heat and light may compose the third. Every later element will include qualitative changes in the articles already possessed. The man wants not only more things, but better ones. He improves and diversifies the material that he uses, and the later increments of his year's stipend of consumers' wealth take on a very heterogeneous character.

Now, the law of diminishing subjective returns applies not only to single articles, but to these composite increments of general wealth. The man would express the fact by saying that the dollars became worth less and less to him as he gets more and more money to spend. With the first hundred dollars he buys a few very necessary things, and with the last some new things and many qualitative changes in the old ones. What the last sum of a hundred dollars does for him in all these ways is relatively little.

The composition of the several increments of wealth consumed is of scientific importance. In the statements that are now current it is said that the final increments of different commodities purchased for consumption at the same cost are, with certain allowances, of the same utility to the purchaser. With the last hundred dollars of the year's income the man in the illustration will buy some particular things that he did not have before, and he will add quantitatively to his supply of things of which he already had a certain amount. If each distinct article on the list costs a dollar, they are all supposed to be of equal utility. Their degrees of utility are, in fact, very unequal.

In careful statements of this law, allowance is made for the fact that, as an income grows larger, there is not a continuous quantitative increase in the consumption of all the articles that are early secured. Some articles for consumption are never duplicated at all; and others, which are duplicated, have, after one unit has been supplied, a comparatively slight utility. One watch may be nearly indispensable; while a second would be of very little use. Another correction of the current form of statement of this law is of much more importance. What is the final increment of wealth consumed? It is not complete articles as such at all. It is almost entirely composed of utilities of articles. These can be mentally distinguished from other qualities that compose the entire articles; but they cannot be separated from them. A man's final increment of consumers' wealth consists mainly in certain elementary qualities that help to constitute the articles that he uses. It is a literal fact that one can scarcely find on the dining-table of a rich man a single article that, in its entirety, enters into the final increment of wealth that he consumes; yet some component element of almost everything there found does so. Something in the meat, the prepared vegetables, the pastry, etc., is bought with

the man's final dollars, and constitutes his final increment of food.

In pure theory the statement of the fact should be this: Every article that a man buys for personal use contains a composite of elements, some one of which enters into his final increment of consumers' wealth. What a man does, as his means of increase, is, before anything else, to improve the quality of the articles that he uses. Often he does not add at all to their number; but he causes them to be made of finer material, or to be larger or handsomer. He adds to his wealth for consumption, not new things, but new utilities; and these are mainly attached to things of kinds formerly consumed. As he cannot literally buy a cheap article and afterwards improve it, he buys the improved article at a single purchase. The literal effect of spending his last dollar consists in the substituting of a good article for the cheap one with which he would have contented himself if his available means had been smaller.

Shelter is one of the prime necessities of life; and there is something in the rich man's mansion that satisfies this primary need. His present house may be the last house that he builds, and in that sense the whole of it is final; but, in its entirety, it is not included within the final increment of his consumers' wealth. The element of simple shelter that the building contains represents one of the earliest increments. Some of the dollars that he has spent are paid for shelter, some for comforts and conveniences, and some for the last elegances that the owner adds to his list of consumers' goods. It is these last elements of cost in the dwelling that, in this man's case, constitute final increment of wealth consumed. The same thing is true of simpler articles. As the man sits at his breakfast table, he recognizes, if he thinks, that the very chop on his plate, by virtue of its different utilities, spans the entire range of his consumption from the first incre-

ment to the last. It contains nourishment, which is bought with what is logically the man's first dollar. It also has qualities that are imparted to it at great cost. Skilled and expensive culinary labor has done its best for it; and it would not be precisely what it is if it were not for the last dollars that are expended in securing an accomplished cook. Simple as this article is, it contains, in effect, a composite of qualities some of which enter into the final increment of wealth consumed, while others distribute themselves through the series of increments to the very last. If one can isolate one of these elementary qualities, he can locate it in the series. The chop, as a whole, is bought with a sum of which some part enters into each increment of the "money" that the man spends on his own gratification.

It is clear that what is called a "final" unit of consumers' wealth is not the one secured last in point of time. Even if we were to actually dole out to a man unit by unit the money that he is to spend on himself in a year, and let him try to buy the supplies for the year in the order of their importance, he could not do it. With the first unit of income he would have to buy the cheapest food; and with later increments he would be obliged to transmute that material into that which is of finer quality. Knowing, in fact, the extent of his income, he buys the fine food in one purchase. That which, in logic and not in time, constitutes the first increment of consumers' goods is that economic element, or utility, in goods consumed that in some form would have been secured if the man had had only one unit of income at his disposal. A man does not, with the first unit of his income, build a shanty, and with later units transmute it successively into a house, a mansion, and a palace. He builds the palace as one operation. Somewhere within it there is what, in an economic sense, is equivalent to a shanty. There is in it, before all things else, a power to afford some shelter to its

occupants; and this single utility, merged and lost in the great structure, constitutes an early unit of consumers' goods. Logically, this unit stands near the head of the list, since it precedes most others in importance. In time it accompanies other utilities that stand late in the list. Some quality in the house, and some quality in everything else that the man uses, constitute the logically final increment of his goods for consumption. A mass of utilities, the logically last and finest qualities imparted to articles used for consumption, constitutes the true final increment of the wealth that he consumes. This is an obvious and practical fact; and a somewhat radical amendment of the theory of value is called for by it.

Market valuation is not an individualistic process. The exchange value of a fine article in the market is not fixed by the utility of that article in its entirety to any one purchaser. Only one utility of this article is included in the final increment of wealth consumed by the man who buys it. Other qualities of it enter into the earlier increments of his consumers' wealth. The value of these other qualities to him does not gauge their selling price. The actual law of exchange value is this: the whole article commands in the market a value that is the sum of the values that measure its several utilities. The logically last utility imparted to it—that which gives to it its finest quality, and makes the logically final addition to its cost—is the only part of it that appears in the final increment of consumers' wealth of the man who actually buys this thing. Other utilities in the composite of qualities constituting the article are final in the case of other purchasers. If there are five distinct services rendered by a handsome bookcase, the fifth, or last and least important, is the only one that is final in the case of the man who gets it. There are men whose purchases stop with the fourth. They content themselves with a bookcase having only four utilities of the five represented by this one.

Others stop with the third, etc. Each separate utility in this article of furniture is final in the case of some purchaser. To no one are they all final. The article in its entirety is not in the logically last unit of any one's consumers' wealth. As the article is analyzed, each element in it is, in effect, equivalent to a separate article; and in this way each appears in the final increment of some one's consumption.

It is an actual fact that a fine article of any kind can only get its valuation in the market by an appeal to as many classes of persons as there are grades of that article offered for sale. The men to whom utility number one is final determine the exchange value of that element in the article; and those to whom utility number two is final determine the exchanging rate for that. Each quality in the composite thing gets a market rating by means of the experiences of a distinct set of men. This is a fact that business life will reveal as well as any deduction; and it proves, if nothing else did so, that value is a social phenomenon. Things sell for amounts gauged by their final utilities to society. In the social body, as a whole, every utility in the article is somewhere in the position of a final utility. The shanty that, in effect, is included in the palace is a final utility to some members of society; and it is their valuation that fixes the market rate that that element in the palace commands. We may use the term *value element* to designate a distinct utility, or service-rendering power, imparted to matter by industry. It is not a whole article, but a quality of that article imparted by a distinct expenditure on the part of the maker, and capable of affording a distinct benefit to the user. The scientific fact to be noted in connection with such value elements is that each one separately considered is subject to a law of diminishing utility, and that the diminution is very rapid. A second unit of such an element is worth, as a rule, far less than the first; and a third falls by a still

greater interval below the second. In the case of most men and of most products a fourth unit is seldom purchased at all.* The line that represents the utility curve of any of these elements trends abruptly downward.

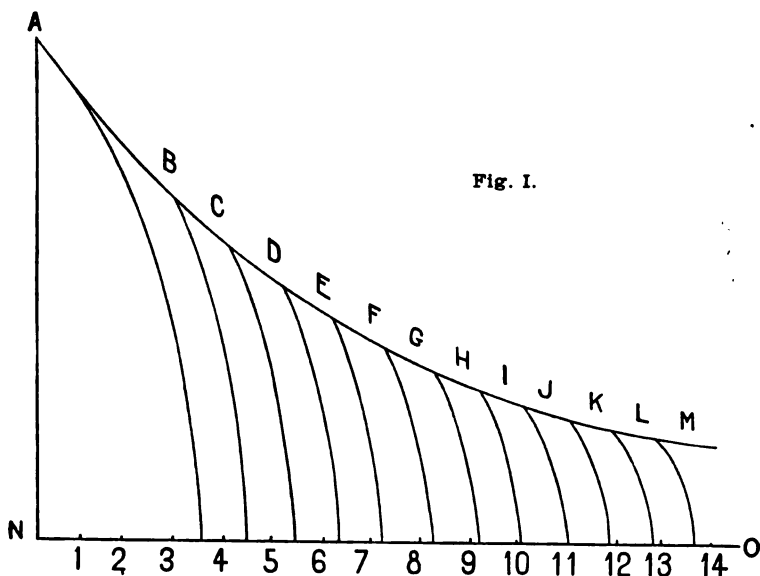


Fig. I.

Let the letters A, B, C, etc., represent different value elements, and let the number of units of each that a man consumes be measured on the line NO. The utility of the first unit of any one is, then, measured by the vertical distance from the letter indicating it to the line NO. The utility of the first increment of A is NA: that of the second unit of A is measured by a line from 1, on the line NO, to that point on the utility curve descending from

* There are homogeneous commodities, such as flour, meat, cloth, etc., of which men buy many units. The utilities embodied in the successive units are not homogeneous. The second measure of flour is designed for a service that is different from that rendered by the first. Except in the case of materials not quite ready for use, the number of such homogeneous articles subject to general increase is not great.

A which is vertically over 1. The utility of the first unit of B is shown by the vertical distance from B to the line NO, etc.

Now, the diminishing utility of general wealth is indicated by the curve AB . . . M. Having freedom to select quite different utilities, as he spends the successive units of his income, the consumer is able to secure a series of articles whose utilities show a gradual decline. B is worth less than A, but it is worth more than a second increment of A. M is worth indefinitely more than a second unit of L. The difference in importance between any two contiguous products is slight. If A, B, C, and D represent the value elements that constitute one article, the diminishing utility of that article in its entirety must be represented by the four lines descending respectively from those letters.

The curve AB . . . M represents the gradual diminution of the utility of "money," or of wealth in indeterminate form, as successive units of it are used for consumption. Not only does the utility curve of general wealth decline less rapidly than that of a single product, but it shows a diminishing rate of descent. When a man is selecting luxuries for consumption, he has a wider range of choice than he has in the selection of necessities. There are many products, or value elements in products, differing little in comparative utility. M on the curve is worth only a little less than L or K. Nearly horizontal is this line of descending utility of general wealth, in its later stages. Comparatively equal and very short are the lines that measure the importance of a unit of it in any form.*

*This diagram may be used to prove that it is important for a man to diversify his consumption. If he has many products to choose from, the specific utility of increasing wealth will diminish less rapidly than it will in the case of a man who has few things to choose from. This point has been presented by Professor Patten with a fulness that leaves nothing to be desired. What I now wish to prove is something different. When the full measure of diversification has been attained, the law of diminishing utility will operate

We may now generalize rapidly. Society is a consumer. We may give general wealth not to one man, but to all men, and its specific utility will decline. Each man will have his utility curve, representing the declining importance of the things that he buys with successive dollars. The dollars last spent* by all-men constitute the final increment of social wealth. They invest themselves in many value elements, and each of these is worth less to the one man who gets it than was any preceding element in his consumption. All the value elements that figure as final are worth less to all-men than were earlier elements. The subjective utility of social wealth is here at a minimum.

If it were possible to buy cheap articles and then improve them, we could isolate the several increments of social consumption, and see what elements compose each one. We could divide the available income of society into tenths, and dole these out to the social body one at a time. With the first tenth each man would get a few things that, from his point of view, are simple and cheap. With a second tenth each man will add some new things to his list of articles consumed, and would improve the old ones. With the third he would add a larger assortment of value elements, since there are now more articles to be improved, as well as a wider range of new articles to be selected. With the tenth fraction of his income each man would get a minute portion of each of a very

rapidly in the case of any one product, and gradually in the case of all products ranged in a series. For more reasons than can here be indicated the basis of the theory of value is the law of varying utility as applied to general wealth. It is, moreover, the consumption of society, and not that of separate individuals, that needs to be taken into account. The study needs to proceed analytically, making distinct utilities, and not articles in their entirety, its subjects. Only thus can the facts that business men perceive and act on be stated in terms of a scientific formula. For a partial statement of this principle see the sixth chapter of "The Philosophy of Wealth," by the writer of this paper.

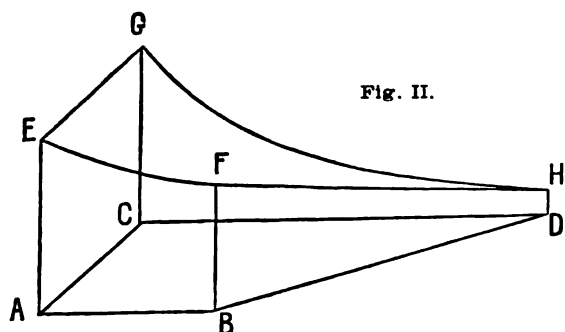
* We have carefully to keep in mind that "last" means logically last, as before indicated, and not latest in point of time.

numerous list of value elements. There would be very many articles on which he would put improvements.

The scientific point to be gained by this imaginary process is the further illustration that it affords of the truth, already stated, that all society acts in determining market values. Many an article has ten distinct component qualities, or value elements. Ten grades are offered for sale. Some men content themselves with the first, and they fix the market value of that grade of the goods. Other men add to the lowest grade one improvement. They fix the selling value of that improvement only. The price of the complete article of grade number two is determined not by either of these classes acting separately, but by both acting together. Each social class fixes, by its demand for some one value element, the price of that element; and it takes them all to give a market rating to the commodity in its completeness. The list of elements that constitute the finest articles bought and sold in the market span the whole range of distinctly social consumption. Each class helps in fixing their values.

If this seems like a refinement of pure theory, it will be easy to see that it is a fact that is acted on by manufacturers. If nine grades of an article are now made, and the question arises whether it will pay to make a grade still finer, one fact to be determined is the amount of the return to be gained by making it. How much will some persons give for the difference in quality between the ninth grade and the tenth? Those who buy the tenth grade will, as a rule, not buy the ninth. Their consumption determines the market value of the proposed improvement only. Poorer men's demand fixes the value of the earlier qualitative elements that enter into the high grade product; and it is the demand of the very poor that begins the operation, and assigns a price to the first value element that enters into it. We saw before that a fine article spans the whole range of a rich man's consump-

tion. One element only is in the final increment of his consumers' wealth; while other elements are in earlier increments, where they have no influence on value. We see now that the different grades of an article of one kind spans the social consumption also, and that it is a matter of practical business knowledge that the different classes in society act together in determining the value of all grades above the lowest.



In the above figure EF is the utility curve of the general wealth used by one man. AB measures the number of products, or value elements, that he gets. He is the poorest man in the society that we are studying, and the utility of the last unit of his income is great, being indicated by the line FB. GH is the utility curve of the richest man in the society. CD measures the amount that he spends, and the short line HD measures the utility of the last unit of it. If we imagine curved lines contiguous to each other, and filling the space between these curves EF and GH, we shall represent the experiences of all members of the society. Each line will be some one's utility curve; and the curved surface EFGH will be the graphic representation of the diminishing utility of the wealth of the society. Vertical lines descending from FH to BD will represent the utility of different persons' final units

of income; and the area of the vertical surface FBDH will measure the entire utility to society of the last increment of its wealth for consumption. *This is the true unit of value.* The utility to society of the last products, or value elements, that it uses is a quantity. The market value of any article that is produced is gauged by its power to contribute to this quantity.*

The law of varying productivity is the other side of the general law that we have examined. Give to a single worker a single necessary tool, and you add indefinitely to the output of his industry. He can dig many times as much with a shovel as he can with his hands. If you give him a second shovel that is the exact duplicate of the first, you add very little to the result of his digging. There are cases in which several instruments of one kind are useful; but the extent of the service that they render diminishes very rapidly as one after another is supplied. As the utility curve of single products all of one kind is a rapidly decreasing one, so the productivity curve of industrial agents that are all of one kind is one that descends with similar abruptness.

Give to the worker a pick or a crow-bar, instead of a second shovel, and you add much more to his output. Counting the earth that he excavates by the yard, you find that he accomplishes much more with the two unlike tools than he does with one. Give him a series of dissimilar tools, and you continue to increase the fruits of his work; but you do so in a diminishing degree. The productivity of capital of which the forms can vary indefinitely is subject to a law of diminution, as the supply of it increases; but the rate of diminution is far less rapid than it would be if the instruments supplied were all of one kind. If A is a shovel, B a crow-bar, C a pick-axe,

* An entire article, say a pair of fine shoes, will not be found in its integrity in this vertical plane that represents the final unit of wealth; but the value elements that separately constitute a commodity of this kind will all be found there, embodied in different pairs of shoes worn by different persons.

and D a spade, each of these kinds of capital goods, as given to one user, shows an abruptly descending curve of productivity.

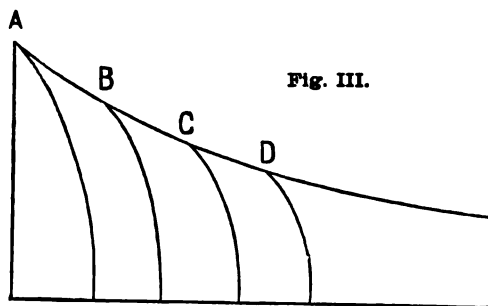


Fig. III.

The productivity of general capital, as represented by the series, descends along the curve AD. Moreover, as the man adds to the variety of capital goods that he uses, he improves the qualities of all that stand earlier in the series. The first shovel was a stick with a square of iron rudely riveted to it. By the time that a man has a pick-axe he has a better shovel. The good shovel, in its entirety, is not included in the final increment of his capital. Only the quality last imported to it is so included. As, in the study of the law of varying utility, we found that it is indispensable to consider qualities in things as the "value elements" that constitute the final increment of a man's wealth for consumption, so in studying the law of varying production it is necessary to resolve an entire instrument into the producing elements that constitute it. Not entire tools, etc., but only the improvements last made in them enter in to the final increment of wealth for production. The stick-and-plate shovel that, in essence, is merged and lost in the fine steel implement constitutes the part of that fine tool that represents the man's first increment of capital goods; while the difference between the two shovels enters into a later increment. All

workers may have their supplies of tools increased, diversified, and improved. Here a careful adjustment is necessary. We must give to each worker the right amount of new capital, and must put that amount into the right forms. If we give to a shoemaker too many tools or too good ones, and to a weaver tools that are too few or too poor, our new capital is not productive as it should be. By carefully balancing the quantities of capital bestowed on each industry we get the best results. We make an all-around increase of capital, giving to shoemaker, weaver, etc., each his share. The last increment of social capital consists to some extent of instruments; but to a greater extent it consists of new productive powers imparted to earlier instruments.

The last increment of the consumers' wealth of society consists in a miscellany of value elements; and the last unit of social capital consists in a miscellany of producing elements. It is the wealth-creating power of this aggregate that determines the rate of interest. Capital used in transmuting wooden buildings into brick ones, brick buildings into stone ones, and stone buildings into vast modern structures of steel, is a type of that which fixes the rate of interest. It is less productive than was earlier capital in its day. A look over an industrial section shows capital forever increasing by this general and momentous qualitative growth. Wooden bridges are giving place to steel structures, and these to stone arches. Heavier become the railway tracks, cars, and engines. Finer and costlier are the machines in the mills, on the farms, and in the mines. It is the grand aggregate of improvements last made by all society that constitutes the final increment of social capital. The product gained by this all-around improvement and enlargement is the final, or test, product on which the rate of interest depends.

We have said nothing and can say nothing about that action of the same general law that fixes the rate of

wages. Labor also has to be studied as a distinctly social element. It has its final increment, and the product of that increment fixes the rate of wages. On one grand law of variation depend the value of goods, the rate of interest, and the rate of wages. On this depend, in a way that we have not studied, the amount of pure profits and the incentive to social improvement. It is an all-embracing law. It governs individual action and social action; and it is from a study of its influence in the social field that the largest scientific gains are to be made.

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THE ENGLISH RAILWAY RATE QUESTION.

I.

THE chief stages in English railway history may be described as follows:—

First. There was the period of doubt and suspicion as regards the national advantage and probable financial success of railways. This period was short. It really extended only from the promotion of the Liverpool and Manchester Railway in 1824 until about 1840. Even while it endured there were incipient movements towards governmental encouragement of railway enterprise; for Parliament was induced to grant a loan to the Liverpool Railway of \$500,000, at $3\frac{1}{2}$ per cent. interest,—a low rate at the time. Parliament also exempted it from the passenger tax which was then payable by stage-coaches. This tax was practically imposed upon the railways in 1832; but the terms of its imposition gave the railways an advantage over stage-coaches which amounted to a not inconsiderable bounty.*

Second. The great change in the attitude of Parliament and the public towards railways came about in the *second* period, when “the extreme of determined rejection or dilatory acquiescence” was exchanged for “the opposite extreme of unlimited concession.”† This, however, is putting the case rather too strongly. The concessions were never unlimited, although they were large. Even at that time the powers of the railway companies were defined by act of Parliament. The promoters of the companies were shrewd enough to ask not for vague powers,

* Cf. Thomas Grahame, *Treatise on Inland Intercourse in Civilized States*, 1834, p. 106 *et seq.*

† Quoted by Herbert Spencer, “Railway Morals and Railways Policy,” *Essays*, American edition, p. 265.

—for vagueness is a two-edged weapon in a statute,—but for large, definite powers. For example, the maximum rates for which they asked were largely in excess of what they intended to charge, and largely in excess also of what they did charge until the inflation of trade in 1870–74. They left a large margin for contingencies, but they demanded definite powers. Railway enterprise was encouraged by these statutory privileges; and the increase of railway dividends, due to the rapid expansion of traffic and the relatively high rates, produced the railway mania of 1845. The railway Acts passed during this period were formed upon a definite model, and in one of the clauses of this model Act the principles of equal mileage and of equal treatment were laid down.*

The Regulation of Railways Act of 1844† gave powers to the Treasury to revise the scale of “tolls, fares, and charges” of any railway company, when the dividends of the company exceeded 10 per cent.‡ The Railway Clauses Act of 1845§ enabled the railway companies to

* “The rates and tolls to be taken by virtue of this Act shall at all times be charged equally, and after the same rate per ton per mile throughout the whole of the said railway in respect of the same description of articles, matters, or things, and that no reduction or advance in the said rates and tolls shall, directly or indirectly, be made partially or in favor of or against any particular person or company, or be confined to any particular part of said railway, but that every such reduction or advance of rates and tolls upon any particular kind or description of articles . . . shall extend to and take place throughout the whole and every part of said railway . . . and shall extend to all persons . . . using the same.”

See copy in Grierson, *Railway Rates, English and Foreign*, 1886, Appendix, p. lxxi.

† 7 & 8 Vict., c. 85.

‡ This limitation has been rather scornfully treated by critics of English railway policy, and no doubt with some justice, when regarded from the point of view of more recent practices of stock-watering, etc., which must render ineffectual dividend limitations pure and simple. In 1845, however, the railway system was yet in its raw youth; and the anxiety of the legislature led it to the adoption of any feasible plan of preventing the railway companies from assuming the position of monopolies. The limitation must be judged in the light of experience at the time when it was enacted. The force and interest of it, apart from questions of the easiness of evasion, vary with the dividends.

§ 8 & 9 Vict., c. 20.

vary the tolls upon the railway "so as to accommodate them to the circumstances of the traffic," thus withdrawing the "equal mileage" clauses of the earlier Acts. The same Act re-enacted the prohibition of "prejudicing or favoring particular parties."

During the period from about 1840 until 1854 the railway network of England was practically created. It is true that this network was built on no definite plan, that it was financed on no very sound principles, that there was much chicanery in promotion, and much mismanagement afterwards. Yet it was made, and made quickly,—made much more quickly, perhaps, than it could have been made, had any other system been adopted. But the want of a plan, besides causing great waste of resources, resulted in discontinuity of lines. Transference of traffic from one line to another was inconveniently conducted, and sometimes even wilfully impeded. Combination or amalgamation of lines became both a public necessity and a public danger. Parliament endeavored to control amalgamations by still more strenuously defining the powers of the companies. But the administration of such laws is always hard; and the mere repetition in successive Acts of clauses against undue preference, etc., suggests that the clauses in the earlier Acts had been disregarded.

Third. In order to obviate the inconveniences referred to, the Railway Traffic Act of 1854* "was passed, with the object of securing facilities for through or other traffic" and "equal treatment for all persons and articles."† This act probably marks the beginning of effective control, and may thus be held to indicate the beginning of the *third* period. During this period, extending perhaps from 1854 to about 1870, there was in England a struggle in railway policy, as indeed in general industrial policy, between a tendency towards diminution of State

* 17 & 18 Vict., c. 31.

† See *Fourteenth Report Railway Commissioners*, 1888, p. 3.

control over industry and commerce, and a tendency towards increase of this control. And there can be no doubt that the latter tendency won, at all events, for the time.

Fourth. This victory marks the beginning of the *fourth* period. Until about 1870 the presumption was against State and municipal control of any public service which was thought capable of being performed by private enterprise. From that date the presumption has been quite the contrary.*

In conformity with the tendency of the time the Railway Regulation Act of 1868† developed the system of control. The greatly increased traffic had brought into existence conditions which could not have been foreseen, and therefore could not have been made the subject of legislation in earlier Acts. Among the new provisions in the Act of 1868 was one upon a subject of which more will be heard later; namely, specification of charge. Under Section 17 of that Act the railway companies were bound to furnish particulars of the charges for goods, and to differentiate between "conveyance of goods on the railway, including therein tolls for the use of the railway, for the use of carriages, and for locomotive power," and so much of the charge as may be "for loading and unloading, covering, collection, and delivery." The next important stage in the fourth period is marked by the Report of the Committee of 1872, and the consequent legislation of 1873. The economical conditions of the time must be kept carefully in view in examining the conclusions of this Report as well as in weighing the evidence given before the committee. For two years trade had been advancing "by leaps and bounds." The traffic receipts of the rail-

* The purchase of the telegraphs by the government, 1867-68; the General Tramways Act of 1870, which gave large powers to municipalities; the numerous gas and water bills promoted by municipalities,—are a few among the many manifestations of this tendency about 1870.

† 31 & 32 Vic., c. 119.

way companies increased 20 per cent. between 1869 and 1872. The proportion of net receipts to capital advanced from 3.91 per cent. in 1867 and 4.22 per cent. in 1869 to 4.74 per cent. in 1872,—a point which they have never since reached. Rates had gone up considerably. The railway companies were doing their utmost to reap a full share of the golden harvest, and the possibilities of their reaping an inordinate share did not appear remote. Thus there naturally arose demands for legislative interference to prevent the railways from taking an excessive advantage of the powers over inland transport which amalgamation had secured to them.

In the discussions before the legislation of 1873 it was the interest of both parties in the controversy to minimize the effect of previous legislation. The traders adopted this attitude because they wanted new and more stringent acts, and they had to show that the existing acts were inadequate; and the railway companies had to show that all legislation of a restrictive kind was useless and pernicious. These dialectical expedients, to which the commissioners of 1872 fell easy victims, ought not, however, to betray us into the belief that the legislation up to 1873 was wholly futile. It is difficult to believe that the railway system would have or could have safely developed with greater rapidity; and it would be difficult to prove that any other policy could wisely have been adopted than that which retained the general principle in all Acts, that a railway company was wholly a creature of statute, and that special conditions should be legislated for as they emerged.

From 1854 until 1872 the railway companies were obviously not allowed to do as they pleased, but they were given extensive powers. To call this system *laissez-faire* is to misapply the expression.* It is rather a sys-

* Cf. Adams, *Railroads, their Origin and Problems*, p. 94, for a contrary opinion.

tem of limited ownership and controlled administration. The English railway policy has been of this nature from the beginning; as we shall see from its more recent history, it has been, for good or evil, a policy of progressive intensification of control. Whether the policy is justifiable or not on abstract grounds, the railway companies have never been free from the leash of the State, and are now more constrained by it than ever. Nor has the policy as disclosed by the statutes been wholly ineffective.

The impetuous conclusion of the Committee of 1872, to the effect that English legislation had never accomplished anything which it sought to bring about or prevented anything which it sought to hinder, is a piece of rhetorical exaggeration which is responsible for much misunderstanding of the English system. The same phrase is applied by Mr. Herbert Spencer to all legislation, and is perhaps in some measure true as a general statement; but it has no peculiar application to railway law. The committee were judging the existing legislation in the light of the situation in 1872, and were not taking into account the general history of English railway policy. No doubt each step had been looked upon, when it was made, as the final one. But this error is not peculiar to railway history, and it is not matter of surprise that the rapid growth of the railway system should have brought frequent need for amendments to the original legislation.

The main point in the discussions of 1872-73 was the question of "undue preference." This was an old question: it had been dealt with in every Act, yet it appeared in full vigor before the Committee of 1872. The reason is not far to seek. Railway rates had been comparatively stationary for some years, until the expansion of trade brought a movement of general rates upwards. Even if the railway companies had not entertained the sinister design of taking a high rate wherever they could get it, and of disregarding the explicit prohibition in these

Acts of Parliament, there would still have been room for the existence of "undue preferences," and for grumbling about them whether they existed or not. It is small wonder, therefore, that the cry of "undue preferences" should have been the leading one at this period. Perhaps the suggestion implies too great astuteness on the part of the railway managers; but it may be that they saw the advantage of accepting as the issue of the inevitable battle between the railways and the public, so comparatively trivial an issue as "undue preference." Whether or not this was their intention, it is clear that the selection of this issue for the fight of 1872-73 led to the postponement for nearly twenty years of the much more serious discussion in regard to the regulation of railway rates. The principal outcome of the legislation of 1873 was the establishment of a new tribunal to try railway causes. The Railway Commissioners' Court was avowedly an experiment.* It has probably, on the whole, fulfilled its function. Appeal to it is not much less expensive to litigants than appeal to the ordinary law courts, but its existence has no doubt exercised an important check upon the giving of "undue preferences." In recent discussions on railway management the question of individual discriminations has dropped out of the field.†

The settlement effected by the Act of 1873 was not disturbed until about 1880, when the question of differential rates,—or of unequal mileage rates,—of low rates for long-distance traffic and relatively high rates for short-distance traffic (the short-haul question), emerged in cases before the Commissioners and also before the law courts.‡

* Professor Hadley's criticism (*Railroad Transportation*, p. 177) seems to me quite just. The Railway Commission is neither a conspicuous success nor a conspicuous failure.

† A useful summary of important decisions is given by Professor Hadley, *Railroad Transportation*, p. 183.

‡ Especially *Budd v. London & North-Western Railway*, 36 L. T., N. S., p. 802, and *Denaby Colliery Co. v. Manchester, Sheffield & Lincoln Railway*, *Seventh Report Railway Commissioners*, p. 5.

According to decisions in these cases, differential rates were illegal; and the result was an agitation mainly in the interests of the traders whose traffic was purely local. The Select Committee of 1881-82 was therefore appointed to deal with this aspect of the question of discriminatory rates. From the first it was evident that this committee would arrive at nothing. It was too large and heterogeneous for serious inquiry into a highly complicated problem. The committee defended differential rates against the adverse judgment of the law courts, but recommended no legislation,—a futile proceeding, which left the rates question in a worse muddle than ever. This was soon made evident in the renewed agitation which took place almost immediately after the report was issued.

Fifth. This agitation did not devote itself to the abstract question of discriminatory rates, but was directed towards an all-round reduction of rates. "The subject of *differential* rates became really a subordinate one. It was the question of *exorbitant* rates that most agitated the public mind."* The agitation and its results cover the *fifth* stage of English railway history.

The beginning of the period extending from 1873 until 1878-79 was a period of high prosperity: the end was a period of depression. In 1880-81 there was again a revival; in 1882 trade was brisk; but in 1883-84 began the period known as the Great Depression, which reached its lowest point in 1886. These occurrences have been recited because it is impossible to dissociate attacks upon the railways by the public from the general economic movement. The inflation of trade had led to increase of rates, and now the depression of trade led to demands that they should be decreased. Clamor for reduction of railway rates was coincident with the fall of prices. But, in order to meet the expanding traffic during the period of

* An inversion of a statement by Professor Hadley regarding the previous period. The whole situation had altered by the time Professor Hadley's book was in the press. Cf. *Railroad Transportation*, p. 180.

inflation, the railway companies had expended great sums in extensions, and especially in stations in the large centres of population. Much of this additional capital was as yet unremunerative or not fully remunerative. The proportion of net receipts to total paid up capital fell from 4.74 per cent. in 1872 to 4.15 per cent. in 1879. It rose to 4.29 per cent. in 1883, and fell to 4.16 per cent. in 1884, to 4.02 per cent. in 1885, and to 3.99 per cent. in 1886. The traders were feeling the pinch of the times, and, in face of a diminishing volume of business and diminishing amount of profits, were anxious to obtain reduction in railway rates; while for the same reasons the railway companies were anxious to keep them up. In 1884 the railway companies embarked in a policy which, from a tactical point of view, was very questionable, and was necessarily unsuccessful. Their rates in many cases already approached the maximum rates, and they knew that it was futile to attempt to induce Parliament to increase these maximum rates; but they determined to make use of the argument that they had expended large sums upon terminal facilities, in order to obtain legislative sanction for charging separately for these terminals. The policy was inexpedient, because it raised a question which it was not for the interest of the railway companies to raise; and it was defeated because of the overwhelming opposition of the traders. Moreover, the battle was a useless one. It need never have been fought. The railway companies had the power to charge for terminals, and had been habitually charging for them. It is true, this proceeding was called in question; but in 1885 the decision in the case of *Hall v. The London, Brighton & South Coast Railway*,* in the special case brought before the Court of the Queen's Bench on the instructions of the Railway Commissioners, settled the law of the question in favor of the railway companies. It was held that they had un-

* *Law Reports, Queen's Bench Division*, vol. xv. p. 506.

limited powers to charge "a reasonable sum," and for the determination of what constituted a reasonable sum there was nothing but the common-law machinery. In asking for definite powers, it is clear that they made a mistake.

The Report of the Royal Commission on Depression of Trade affords a considerable amount of evidence upon the views of the traders in regard to railway rates during the depression. There can be no doubt that the traders were irritated by the fall in prices and the absence of a corresponding reduction in the cost of transport.*

The shelving of the problem by the Committee of 1881-82, the failure of the railway companies to carry their proposals through Parliament, and the increasing complexity of the rates system, due to the development of differential tariffs, had brought the railway system into a condition of chaos. No doubt the traders exaggerated the difficulties of the situation, but it is certain that it had become too highly complex for the conservative and indolent mind of the English trader. He did not know what he was to be charged for the goods he despatched, and he objected to terminals which he did not understand and to which he affected to be unaccustomed.

The mere evolution of industry contributed to this confusion. The Clearing-House Classification had grown by accretion until it reached 4,000 items: the rates had multiplied until they became hundreds of millions. Some simplification appeared advisable, and the Government was ultimately induced to undertake it. Besides, it seemed that action of some kind was necessary to relieve the pressure upon the miscellaneous trades,† which were suffering from the depression and were powerful enough to make their clamor heeded; while, on the other hand, railway interests were no longer so formidable in Parlia-

* See below, p. 294.

† On the development of the miscellaneous trades at this time, see Mr. Giffen's Address to Section F, British Association, 1887.

ment as once they were.* Therefore, the government (Lord Salisbury's) brought in and carried the Railway and Canal Traffic Act of 1888.† This Act practically intrusted the Board of Trade with the formulation of a thorough-going revision alike of classification and of rates.‡ It also reorganized the Railway Commission,§ endowed the Board of Trade with the privileges of a "candid friend" of the railways and of the traders alike, entitling it to receive complaints from traders, and to confer with the railway managers on the subject of these complaints, without, however, giving the Board any magisterial powers regarding either the railways or the traders in these matters.|| These complaints were to be made the subject of annual reports to Parliament. The railway companies were also required to render to the Board of Trade such statements as the Board might from time to time prescribe.¶

In undertaking the revision of the classification and the maximum rates, the following procedure was prescribed: Every railway company was required to submit to the Board of Trade "a revised classification of merchandise traffic, and a revised schedule of maximum rates and charges applicable thereto, proposed to be charged," and to state fully "the nature and amounts of all terminal charges proposed to be authorized in respect of each class of traffic, and the circumstances under which such terminal charges are proposed to be made. In the determination of the terminal charges of any railway company regard shall be had only to the expenditure reasonably necessary to provide the accommodation in respect of which such charges are made, irrespective of the outlay which may have been actually incurred by the railway company in providing that accommodation." **

* *Financial Reform Almanac*, 1891, p. 129.

† 51 & 52 *Vict.*, c. 25.

‡ *Ibid.*, Part II., §§ 24-30.

§ *Ibid.*, Part I., §§ 2-23.

|| *Ibid.*, § 31.

¶ *Ibid.*, § 32.

** *Ibid.*, § 24, subsection 1.

The classification and schedule were to be submitted within six months,—extensions of time being granted in certain cases,—and then they were to be open to examination and objection by all those whom the Board of Trade considered entitled to be heard. After having heard the evidence and formulated its classification and schedule of rates, the Board of Trade was instructed to endeavor to come to an agreement upon these with the railway companies. Should no agreement be arrived at, the Board of Trade was itself to determine what was “just and reasonable,” and to embody this in a report. This report was to be presented to Parliament, and after the lapse of a recess the proposals contained in this report were to be submitted to Parliament in the form of Provisional Order Bills. No agreement could be arrived at between the Board of Trade and the railways. “Everybody was dissatisfied,” and the board adopted the course prescribed in the Act. This inquiry was held in 1889–90 by Lord Balfour of Burleigh and Mr. (now Sir) Courtenay Boyle, on behalf of the Board of Trade, in the Westminster Town Hall. The inquiry lasted for eighty-five days; and an enormous mass of evidence, filling eleven volumes, was received. The report to the secretary of the Board of Trade by the two gentlemen named constituted the classification and schedule which they recommended as “fair and reasonable.” This classification and schedule were afterwards embodied in a set of Provisional Orders. Although the classification was uniform, and the schedules of rates were nearly, though not quite alike, each railway company was legislated for by a separate Provisional Order Bill. These Provisional Order Bills were then presented to Parliament. They were not promoted by the Board of Trade, but were held to follow upon the act of 1888. After passing the second reading, they were remitted to a Joint Committee of the House of Lords and the House of Commons; and in the inquiry before that committee the

whole subject was threshed out once more. The committee sat for forty-two days, and heard counsel and evidence upon all the points, and made several important amendments to the bills. Finally, the bills reappeared in Parliament, where they were further amended;* and after three years of close discussion the revised classification and rates became law on July 24, 1891, although the changes were not to take effect until August 1, 1892.†

II.

My purpose now will be to attempt to disentangle from the enormous mass of evidence some illustrations of the chief among the contested points in the theory of railway rates.

It seems necessary to say a preliminary word about the manner in which the Board of Trade and the Joint Committee of 1891 have conducted this inquiry, and have carried into effect the conclusions at which they have arrived.

Whatever may be the opinion as to the effectiveness of the legislative fixation of maximum rates or as to the advisability on abstract grounds of control over private enterprises being intrusted to government departments, no one who watched the course of the three years of controversy from 1888 till 1891 could fail to be impressed with the acuteness and fairness with which both the Joint Committee and the Board of Trade approached the subject, as well as with the comprehensiveness and thoroughness of their examination of it. The revision of the maximum rates was a work which could be expected to bring no gratitude. The railways were certain to be dissatisfied, if the traders were pleased; and, if some traders were pleased, others were certain to be dissatisfied. The arbiters among the rival interests were likely to offend them all.

* *Hansard*, Series III., vol. 356, cols. 269 *et seq.*

† The date was afterwards extended to January 1, 1893.

It is quite certain, nevertheless, that the method of revision of maximum rates has had a fair trial. The issue may be unfortunate from causes external to the railway system pure and simple, or from some inherent defect in the principle, or from lack of judgment or temper on the part of the railway managers or the traders; but it is unlikely that any more impartial investigation into the special conditions applicable to railway rates in England will be undertaken in our time.

Although railway companies frequently quarrel with each other,* when the question is one of demand for general reduction of rates, they stand together. Traders, on the other hand, are unaccustomed to united action. Their interests, as opposed to those of the railway companies, although in a superficial view identical, are really very divergent. It is the interest of the large trader to get low rates for truck-loads or for train-loads, whereas it appears to be the interest of the small trader to prevent the large trader from getting differential rates for large quantities. It is to the advantage of the trader who sends his goods to a distant market to obtain low rates, while the small trader with whom he is competing in the distant market looks upon low long-distance rates as an evil. It is to the advantage of certain traders in timber to have their goods charged by weight, while for other traders in the same commodity it is an advantage to have them charged by measurement. It is to the advantage of some traders to have a system of charges which involves detailed specification of charge, since an individual trader may prefer to render for himself some of the services which a railway company customarily renders; while others object to specific charges as being equivalent to an

*The time of the Railway Commissioners is largely occupied with the quarrels of railway companies. In 1886, 11 out of 12 cases before them were cases of railway against railway; in 1887, 6 out of 12; in 1889, 3 out of 11; in 1890, 7 out of 28; and, in 1891, 1 out of 19. *Annual Reports of the Railway and the Railway and Canal Commission for these years.*

attempt to extort additional rates. Here is a sufficient divergence of interests at the outset to puzzle the most benign and patient tribunal. Behind these more or less reasonable differences of opinion were various forms of unreasonable demands. It was obvious that a series of compromises must be effected; and it was equally obvious that, on any principle of averaging, some must be levelled up if others were to be levelled down. These considerations did not at first enter into the representations of the traders. Revision of rates must mean for them reduction of rates: revised classification must mean that "no article should be rated higher than it is at present." * Lord Balfour of Burleigh truly remarked that a classification and schedule would have to be devised which would "satisfy the most unreasonable of unreasonable people."

It is not easy to find any definite principle which the Board of Trade consistently followed either in the classification or in the schedule of rates. Sometimes it would appear as though the principle of "what the traffic would bear," and sometimes as though "cost of service," were the basis. What was really done was to take the clearing-house classification and the existing maximum rates, and deal with them in a purely empirical fashion. The principle adopted was avowedly, and perhaps under the circumstances unavoidably, the rule of thumb.† It is the general method of English legislation to effect a series of compromises without troubling about consistency in underlying theories.

As the Board of Trade conceived its duties, three things had to be done: "(1) The codification and reduction into order of the immense mass of scattered provi-

* "First Principle of Classification," in the statement made on behalf of the British Iron Trade Association. *Board of Trade Inquiry*, March 12, 1890, Statement, etc., London [1890], p. 19.

† Mr. Courtenay Boyle, statement for the Board of Trade. *Report from the Joint Select Committee of the House of Lords and House of Commons on the Railway Rates and Charges Provisional Order Bills*, 1891.

sions relating to the charging powers of the companies; * (2) the revision of the existing maximum charges; and (3) it was necessary in respect to some matters, particularly terminals, that charges which had not previously been fixed and defined should for the future be fixed and defined."† The intention of the Board of Trade was therefore to simplify the existing complexity of rates, and to make exhaustive specifications of what the railway companies might charge.

This was the interpretation the Board of Trade put upon the instructions of the Act of 1888. The railway companies argued, or seemed to argue, that the sole duty of the Board of Trade was codification, while the traders seemed to argue that the sole duty of the Board was reduction of rates.

III.

A commentary on the principal points which emerged in the course of these prolonged discussions falls naturally into the following heads:—

A. THE DEMAND FOR SPECIFICATION OF THE INGREDIENTS OF CHARGE.

B. TERMINAL CHARGES: (a) Station terminals; (b) Service terminals.

C. CONVEYANCE CHARGES: (a) Use of road; (b) Use of locomotive power; (c) Use of wagons.

D. CLASSIFICATION: (a) As regards conveyance charges; (b) As regards terminal charges.

* "They had to codify about 1,200 Acts of Parliament." Mr. Stanhope, in the House of Commons. *Hansard*, July 24, 1891. This, however, does not by any means represent the extent of the English Acts regulating the railway companies. The London & North-Western Railway Company, *e.g.*, had its Acts codified by a parliamentary barrister about ten years ago. At that time the company was working under upwards of 1,000 Acts, including, of course, all the Acts of the subsidiary lines which it had absorbed.

† Mr. Muir Mackenzie, statement for Board of Trade. *Provisional Order Bills Report*, 1891, Part I., p. 16.

A. The demand for specification of the ingredients of charge appears continually in the traders' arguments, and is indeed mildly admitted by the railway companies.* The ground of the demand is that the trader ought to know for what he is paying and how much he is paying for it. There may be some part of the service which the railway company offers which he is prepared to render for himself; but he does not know whether it is worth while to do so, unless he can ascertain exactly what the railway company is charging for the particular service in question.

In order to understand conditions which have not sprung into existence in a day, but have their roots in the past, one must continually refer to ancient history; and Mr. Justice Wills was indubitably right when he said that "the notion of the railway being a highway for the common use of the public, in the same sense that an ordinary highway is so, lies at the starting-point of English railway legislation."† This notion underlies the Acts of 1845‡ and 1873§ alike. It underlies the provision in the latter Act by which the company is obliged to give details of rate;§ and it has also formed the ground of various decisions of the Railway Commissioners|| and of the law courts.¶ The intention of the Act of 1888** was clearly to emphasize this historical provision. The reason for the maintenance of a provision which to some seems archaic is very obvious, when we consider the English railway situation. The Midland and North-Eastern Railway Com-

* As, e.g., by Mr. Bidder, Q.C., for the railway companies. *Provisional Order Bills Report*, 1891, Part I., p. 70.

† *Law Reports, Queen's Bench Division* (1884-85), vol. xv. p. 530.

‡ 8 & 9 Vict., c. 20, §§ 86-111.

§ 36 & 37 Vict., c. 48, § 14.

|| E.g., *Thirteenth Report Railway Commissioners* (1886), pp. 6 and 30.

¶ E.g., *Hall v. London, Brighton & South Coast Railway, L. R., Q. B. D.*, vol. xv. p. 530.

** Sect. 33. Cf. also Mr. Courtenay Boyle's statement. *Provisional Order Bills Report*, 1891, Part I., p. 227.

panies are practically the only English companies which own their own mineral trucks.* The mineral trucks on other lines are almost entirely owned by traders. Again, some traders do not use the stations of the companies, but have sidings of their own, which they are entitled to have if they choose to pay for them; and, having paid for sidings, they do not expect to be called upon to pay also for the stations which they do not use. Such traders clearly want, and of course have had, as matter of practice, rates lower than the total rates, which included services of which they did not avail themselves. Another equally important reason for specification of charge lies in the circumstance that, as regards general merchandise, the English railways are not alone "conveyers" of goods, but are also "carriers"; that is, they undertake the business of "common carriers,"—they collect and deliver. It may or may not be convenient or desirable that the trader should intrust the collection and delivery of his goods to the railway company; and, if he does not do so, it is argued that he ought not to be charged for a service which is not performed for him.

The extent to which this splitting up of rates may usefully be carried was actively discussed during the controversy; and the view adopted by the Board of Trade was that the splitting up should be carried out exhaustively, so that there should be no room for any other charges than those specified. The traders also desired that a clear and broad line should be drawn as to what charges the railway company may legally make.†

There were thus two elements in this demand for speci-

* The latter company has owned all its mineral trucks for many years; but the former only began the policy of acquiring trucks in 1881, when 60,000 or 70,000 trucks were purchased from the traders on the system at a cost of about \$9,000,000. See *Report* above quoted, pp. 251, 252, and 258, *Queries* 1179 and 1195.

† Mr. Woodfall for the Marquis of Bute as trader. *Provisional Order Bills Report*, 1891, Part I., p. 70.

fication of charges. One was that a specific charge should be made for each individual service, and the other that these charges should be fixed, and not be subject to fluctuation. Here a curious question emerged. It was clear that, if the charge was to be fixed under the Provisional Order of the Board of Trade, the trader might be at the mercy of the Board, since at that particular stage of the proceedings the *quantum* of none of the charges was fixed. It was therefore proposed, in several instances of this specification, to provide for an appeal to arbitration, the arbitration to be conducted by a nominee of the Board of Trade. Here, however, the railway companies stepped in, and said: "No! If the charge is to be fixed, it must be fixed now. We will not submit to the arbitration of the Board of Trade." Sometimes the railways gained their point, and sometimes the traders; and thus on certain charges there is an appeal to the Board of Trade, and on certain others there is not. The traders, indeed, as subsequent proceedings have shown, have had their bugbear, "vagueness," banished at a price.

The publication of rates is a debated point upon which no definite provision is made in the bill, or, at all events, no provision other than that of previous Acts, which in this respect have not invariably been observed. The motion that the railway companies should exhibit at their stations all the actual rates chargeable from those stations was not accepted by the committee. Mr. Acworth has scouted this idea on the ground that such exhibition would require a forest of timber; but he has himself made the valuable suggestion that changes in the rates should be published in the monthly journal issued by the Board of Trade,* as the rates on the French railways are published in the *Moniteur*. The trader may, however, under the Act of 1888, demand an exhaustive analysis of his

* *Nineteenth Century*, vol. xxxi. p. 149.

rate,* so that he may, if he pleases, perform for himself any one of the services charged for.†

B. When the railway companies promoted their bills, in 1884-85, to place the legality of terminal charges beyond question, the traders vehemently opposed them, because the proposals were unaccompanied by any modification of rates. When the Board of Trade proposed to deal with rates and terminals together, the railways were up in arms.‡ When, however, the traders and the railway companies came face to face with the Board of Trade, in 1889, they were both obliged to give way. The traders had to submit to terminals, and the railway companies had to submit to the "confiscatory policy" of revision of maximum rates. The definite provision of a charge for terminals followed, indeed, logically upon the demand for specified ingredients of charge. Under the former Acts "the rate for 'conveyance' was the only sum which was set out in definite figures. The sums which might be charged for station and service terminals were left vague."§ Terminals were, however, charged,|| although there were no statutory powers to charge specific sums for them; and the railway companies were ever doubtful until the decision in Hall's case¶ settled the question.

In pursuance of the policy of exhaustive specification

* Sect. 33, subsections 3 and 7.

† Since the Act, with its attendant Provisional Order Confirmation Acts of 1891 and 1892, came into force, some of the railway companies have, it would appear, refused to render the details of rates to traders. In order to affirm the state of the law on the point, the Board of Trade took in June, 1893, the opinion of counsel. This opinion was as follows:—

"Upon a proper application being made under subsection 3 of Section 33 of the act of 1888, the company are bound to dissect the actual charge made, on the ground that the subsection applies not only to the maximum rates, but also to the charge made or claimed." *Hansard*, Series IV., vol. 12, col. 1045.

‡ See above; and cf. Grierson, *Railway Rates*, p. 80.

§ *Provisional Order Bills Report*, 1891, Part II., p. 1075.

|| *Ibid.*, p. 1112.

¶ Quoted above.

of charge, the Board of Trade for the first time recognized a distinction, which has now become a statutory distinction, between station terminals and service terminals.* The meaning of this distinction is obvious. Station terminals are charges for the use of station buildings or sidings, while service terminals are charges for certain manual operations.

The pros and cons of the complicated question of station terminals cannot be fully given here, but the chief points may be suggested. In the first place, since some traders use the station and some do not, it is clear that, unless there were a definite reduction to the trader who did not use the station, he would be paying for a service which he did not demand. Moreover, unless there were specific rates minus the terminal, no trader could tell whether or not the rate paid by his neighbor, who loaded his goods at his own siding, fell within the law of undue preference. Again, if the terminal were included in the mileage rate, the long-distance traffic might be handicapped in relation to the short-distance traffic, though not necessarily. On the other hand, if the same terminal were charged irrespective of distance, as was the case in the Board of Trade schedule and is now in the Acts embodying the Provisional Orders, the short-distance traffic would be handicapped in relation to the long-distance traffic. It happens that the kind of traffic which is most affected is the export traffic; and it was therefore argued that the proposed terminal would act as a restraint upon exports. Again, it was shown that terminal facilities varied very much, and that a uniform charge for these would be unfair. The strongest argument, however, against terminals was the argument that the schedule of the Board of Trade prescribed differential distance rates for conveyance, and that these secured for the company due payment in respect of the circumstance that short-

* *Provisional Order Bills Report*, 1891, Part II., p. 67.

distance traffic was relatively more expensive to deal with than long-distance traffic.

(a) The meaning of station terminal is expressed in the following definition: "The maximum station terminal is the maximum charge which the Company may make to a trader for the use of the accommodation provided, and for the duties undertaken by the Company for which no other provision is made in this schedule, at the terminal station for or in dealing with merchandise, as carriers thereof before or after conveyance."* This definition must be taken in connection with the specification of services under service terminals. It is held to exclude specific charges for such services or duties as signalling, marshalling trucks, etc., which are held to be part of the necessary functions of the railway,† not susceptible of being made the subjects of independent charge.

(b) Service terminals are defined as consisting of (1°) loading, (2°) unloading, (3°) covering, and (4°) uncovering. Each of these is subject of separate charge, when separation of charge is required; and no one of them may be charged unless the service is rendered.‡

Prior to 1845 very few of the railway companies did the business of carriers,§ and thus the question of terminal charges did not arise until after the railway system had developed to some extent. Terminal charges without specification came afterwards. It was only in the schedule of 1891, constructed by the Board of Trade, that, in obe-

* *Analysis of the Railway Rates and Charges Order Confirmation Acts, 1891 and 1892.* Parl. Paper C.—6832, p. 102.

† For which probably they may be held to receive remuneration as "conveyers," although this special point has not been fully tested.

‡ In Class C, for example, the following are the charges: maximum station terminals, 1s. per ton at each end; maximum service terminals,—(a) loading, 3d. per ton; (b) unloading, 3d. per ton; (c) covering, 1d. per ton; (d) uncovering, 1d. per ton. *Provisional Order Bills Report, 1891, Part I., p. 154.*

§ Cf. Mr. Littler, Q.C., in *Hall v. London, Brighton & South Coast Railway, L. R., Q. B. D., vol. xv. p. 528.*

dience to the principle of exhaustive dissection of charge, the separation between station and service terminals was made for the first time. * It is true that the four services detailed, with the services of collection and delivery which are now by implication excluded from terminal services in the legal sense,† were mentioned in the Act of 1873,‡ and traders were entitled to demand revision of them; but there was no provision for specification of charge such that the trader could determine whether or not he could perform any one of the services for himself more efficiently or more economically than the railway company was prepared to do it for him. Here, however, an important legal point arose. Had the trader a right to demand access to the premises of the railway company for any purpose whatever? Under the Act of 1854 the trader is entitled to "reasonable facilities";§ but it is open to doubt how far this provision will entitle him to insist upon performing services customarily performed by the railway companies. The Lancashire and Cheshire Conference proposed to the committee to make the powers definite, reserving powers to the railway companies to make by-laws; but this suggestion was not adopted.||

While arbitration by the Board of Trade is applicable to station terminals, it is not applicable to service terminals. The attitude of both traders and of railway companies towards arbitration is curiously varied. When it is thought that arbitration will be an advantageous provision for either party, it is argued by the other that it

* *Provisional Order Bills Report*, 1891, Part I., p. 67.

† Collection and delivery and also weighing may be charged a reasonable sum, to be determined in case of dispute by an arbitrator appointed by the Board of Trade at the instance of either party. *Order Confirmation Acts*, London & North-Western Railway, 1891; e.g., clause 5.

‡ Sect. 15.

§ Compare Mr. Pope's statement, *Provisional Order Bills Report*, 1891, Part I., p. 146, with Mr. Balfour Browne's at p. 155.

|| *Ibid.*, p. 143.

would be very absurd to fix immutably a charge which might, under certain conditions, come to be quite unreasonable; or it is argued that arbitration establishes no principle, and that it costs nearly as much as legal process. The railway companies accepted the principle of arbitration so far as station terminals were concerned, but objected to it for service terminals. They demanded and obtained power of "absolute charge" not changeable by arbitration.*

C. Although there is no legal definition of "conveyance," † the charges for conveyance are held in the English railway system to be composed of the following ingredients:‡ (a) toll for the use of the road;§ (b) haulage rates, or the payment for the use of the locomotive for haulage; and (c) payment for the use of wagons. The splitting up of rates into their constituents was much insisted upon by the traders. It was regarded as a great advantage to them.|| This reaffirmed statutory power in the hands of the trader to demand analysis of his rate has been one of the immediate causes of the recent friction between the railways and the traders.¶

(a) First, in regard to *tolls*. Although the apparent

* Cf. *Provisional Order Bills Report*, 1891, Part I., p. xv, and Part II., p. 1114.

† See, however, Wills, J., judgment in *Hall v. London, Brighton & South Coast Railway*, L. R., Q. B. D., vol. xv. p. 505. See also *Provisional Order Bills Report*, 1891, Part I., pp. 34, 37, 91, and 117. "Conveyance" and "carriage" are not synonymous. The mileage rate provides for that part of the duty which is conveyance, and the station terminal (and the service terminal) for another part of the duty which is performed by the railway companies as "carriers." Cf. Mr. Bidder, Q.C., *Ibid.*, p. 75.

‡ *Report*, 1891, pp. 56 and 479. See also Grierson, *Railway Rates, English and Foreign*, 1886, pp. 96, 97.

§ Signalling is probably included in this, although the point has not been legally tested. On the traders' fear that signalling might be made the subject of a separate charge, see *Provisional Order Bills Report*, 1891, Part I., p. 82.

|| *Provisional Order Bills Report*, 1891, Part I., p. 92.

¶ Although the power is not novel.

intention of Parliament was to deal with the whole subject of railway rates in the Act of 1888, it was accepted as certain by the Board of Trade that, under the terms of the Act, while it was empowered to deal with rates and charges, it was not empowered to deal with tolls.* This defect in the drafting of the Act, if it was a defect in drafting, produced the curious result that, if the railway companies were dissatisfied with the revised classification and schedule,—that is, if the reduction of rates were carried too far,—it was open to them to refuse to act as conveyors or carriers, and simply to fall back upon their function as road-owners and upon their statutory powers to levy certain tolls for the exercise of that function.† If the maximum rates and charges permitted to them by Parliament for the total of their services fell short of their powers of charge for one of these services, it might become their interest to follow this course. Such a policy would result in the development of haulage companies and of wagon companies, express companies, etc., such as are common in America, in order to undertake functions presently performed by the railway companies.‡ The railway companies maintained, and the contention was not rebutted by the opposing counsel, that the old Acts of Parliament were not repealed by the Act of 1888 and the subsequent Provisional Orders, excepting in so

* *Provisional Order Bills Report*, 1891, Part I., p. 119; also Mr. Courtenay Boyle's statement, p. 479.

† *Provisional Order Bills Report*, 1891, Part I., p. 118; also Grierson, *Railway Rates, English and Foreign*, 1886, p. 97.

‡ The private use of railway lines on payment of tolls is not unknown. See Powell-Duffryn case, quoted *Provisional Order Bills Report*, 1891, Part I., p. 120. The Court of Chancery decided in this case that the only difficulty in the way of private persons running trains over a railway line is that such persons cannot compel the railway company to work the signals,—not because they cannot require this to be done, but because in the nature of the case they are not in a position to see that their orders are carried out. Some traders seem not indisposed to attempt to frighten the railway companies by suggesting that private companies might establish stations and charge lower terminals than the railways. Cf. *Ibid.*, p. 264.

far as they fixed *rates and charges*, the *tolls* being left untouched.* Saving, however, this "last trench" of the railway companies, the old tolls were practically abolished; and conveyance rates, including them as one of three ingredients, were substituted.

(b) In considering the second ingredient, *haulage rates*, it is to be observed that the principle adopted in the earlier English railway Acts for the fixation of maximum tolls was the principle of "equal mileage." This arrangement was drawn from the canal regulations, and also from the fixed tolls of the horse railways which preceded the locomotive lines; but the development of traffic produced differential rates, and was accelerated by them. There are two leading points in the discussion of haulage rates in the English system. These are: (1) the graduation of rates for distance, with or without a minimum of chargeable distance; (2) the graduation of rates for tonnage, with or without a minimum of weight, varying with the classification. On both of these points there is a cross-current of interests. The interest of all large traders is to reduce the powers of charge for quantities; and that of some large traders, those dealing in goods which are customarily transported to a distance, is to reduce long-distance rates. On the other hand, it is the interest of small traders† to prevent the large trader from having the advantage over him which would be secured by a differential rate in respect of quantity; and it would be the interest of traders, large or small, whose traffic is

* Mr. Bidder, Q.C. *Provisional Order Bills Report*, 1891, Part I., p. 478.

† Or appears to be; for, if the railway company makes a large net profit on a large wholesale traffic at a low rate, it will be able to charge lower rates for small quantities than would be possible if its net profit were reduced, owing to the restriction of the wholesale traffic to the goods which could afford to pay a high rate. The effect of a differential tariff in respect of quantity would, however, be to restrict the small trader to a purely local market. He could not compete against the large trader in a distant market, since the difference in rates of carriage in respect of quantity might suffice to give the large trader a profit.

mainly local, to oppose a differential distance tariff. The railway companies' interest lies in obtaining both the highest maximum powers and permission to give differential rates in so far as these might be necessary to secure paying traffic. The railway companies' interests thus coincide at a certain point with those of both small and large traders.

(1) *Differential Rates in Respect of Distance.*—Such rates may be calculated by two methods: (a) by simple gradation,—so much for 10 miles, 20 miles, 50 miles, and so on; or (b) by the cumulative method,—so much per mile for the first 10 miles, so much less for the next 20 miles, so much less for the next 50 miles, and so on. The first method is open to the objection that the charge for, say, 19 miles will be positively greater than the charge for 21 miles, unless the reduction at each stage is infinitesimally small. This objection was surmounted by the “overlapping clause,” which prescribed that the rate for one distance was not in any case to be less than the rate for a shorter distance. This method, with the overlapping clause as a rider, was the method of the English system prior to 1892. Now, however, under the new regulations, the second, or cumulative, method has been adopted, which is free from the objection of overlapping, although for long distances it involves some calculation. Given the expediency of differentiation of rate in terms of distance, there seems little to object to it on grounds of principle.

The question of minimum chargeable distance is necessarily associated with the question of terminals. Terminals are not chargeable on Class A (heavy goods); and on such goods it appeared to the Board of Trade fair to give a relatively high minimum of distance, for the reason that the cost to the railway for a short haul was greater than the amount yielded by the conveyance rate on a mileage basis pure and simple.* In this concession to

* *Provisional Order Bills Report*, 1891, Part I., p. 290.

the "cost of service" principle the Board of Trade followed precedents as well in connection with the same matter as in connection with additional mileage allowances for tunnels, etc.,—as, *e.g.*, the Severn Tunnel,—and for bridges,—as, *e.g.*, the Forth Bridge.

The older Acts gave a minimum chargeable distance of 6 miles for heavy goods conveyed at low rates; but the more recent Acts had slightly increased the maximum conveyance rate, and had given a minimum chargeable distance of 3 miles.* The new regulations give a minimum chargeable distance where no terminal is charged of 6 miles, where one terminal is charged $4\frac{1}{2}$ miles, and where two terminals are charged 3 miles.† There is a proviso to the effect that, where goods pass from one line to another in the course of a journey within the minimum applicable to the class, they are not liable to a double short-distance charge.‡

The larger proportion of the traffic on the English lines is short-distance traffic.§ The average journey in the South Wales coal region is 20 miles.|| In the Stour Valley district 35 per cent. of the traffic is transported for distances under 6 miles.¶ A vivid illustration of the mode in which short-distance traffic is conducted in England is given by Sir Henry Oakley, manager of the Great Northern Railway. "Here is a particular train upon a particular morning. It starts with 6 wagons. At the first station it stops at it puts off 1 and takes on 4, at the next it puts off 3 and takes on 3, at the next it puts off 1 and takes on nothing, and at the next it puts off 6 and takes on 3, and it goes on over a journey of 76 miles. By working traffic between stations on that 76 miles, and collecting through traffic, it lands with 25 wagons at the

* *Provisional Order Bills Report*, 1891, Part I., pp. 287, 296.

† *Ibid.*, p. 313.

‡ *Ibid.*, pp. 321, 322.

§ *Report*, Part II., p. 1126, Query 10325.

|| *Report*, Part I., p. 249, Query 1167.

¶ *Ibid.*, p. 293.

end, the greatest weight it has ever had on the whole journey."* The railway companies profess that the short-distance traffic does not pay.† The bulk of the short-distance traffic consists of minerals,—coal and iron ore, for example, from the pit-mouth to the iron works, or, in the case of the former, for shipment coastwise or for export.‡ The remainder of the short-distance traffic is of the sort described above.§ Some of this traffic, especially on branch lines, is probably often conducted in an unnecessarily expensive manner. ||

According as we regard it from the point of view of the "cost of service" or from the point of view of "what the traffic will bear," the reduced rate per mile for the long haul rests either upon the principle that it costs less per mile to move a ton 100 miles than it costs to move it 10 miles, or upon the principle that the distance to which traffic can be procured for carriage is in reciprocal proportion to the rate per mile.¶

(2) *Differential Rates in respect of Quantity.*—In the

* *Provisional Order Bills Report*, 1891, Part I., p. 309. The average speed of these local trains is 6 miles an hour. *Ibid.*, p. 300, Query 1401.

† "It has forced itself upon our minds constantly that, practically, the long-distance traffic pays for the extra expenses incurred in working the short-distance traffic. We must get a dividend; and, if we cannot get it out of the short distances, we must get it out of the long distances." Manager of Great Northern Railway in evidence, *Provisional Order Bills Report*, 1891, Part I., p. 309, Query 1529.

‡ The extent to which the mineral traffic pays or does not pay is a disputed point. Cf. the rival views of Mr. Conder, *Proceedings Institution of Mechanical Engineers* (England), 1878, p. 184, and of Mr. Price Williams, *Ibid.*, 1879, p. 96. Cf. also observations on the relative profit of passenger and goods traffic. *Statement British Iron Trade Association* [1890], p. 16.

§ Shunting heavy traffic is said to cost on the London & North-Western Railway Company 11.6 per cent. of the entire cost of locomotive power used on the line. *Proceedings Institution of Mechanical Engineers*, 1878, p. 187.

¶ See the remarks of Mr. Bergeron, *Ibid.*, 1879, p. 147; and cf. Herbert Spencer's criticism, "Railway Morals and Railway Policy," *Essays*, p. 301.

¶ From the point of view of railway administration both principles must be taken into account. Cf. *Atti della Commissione d' Inchiesta sull' Esercizio delle Ferrovie Italiane*, 1884, Parte II., vol. ii. p. 957 *et seq.*

earlier Acts there was no minimum of quantity. There were equal tonnage rates within the class; and the class was fixed with exclusive regard to the nature of the goods, irrespective of quantity.* Under the railway clearing-house classification the minimum of weight was fixed at 4 tons for goods heavy in relation to their value per unit of weight, and at 2 tons for light goods.† This limitation grew up in practice within the maximum total rates.‡ There are two elements in the fixation of the minimum quantity: (1) the minimum quantity consignable at a certain rate, and (2) the minimum load at a certain rate. That these elements are distinct§ will be obvious when one considers that the same trader—a chemical manufacturer, for example—might send in one consignment separate packages of different goods which could not be loaded in the same truck without danger. Such goods are subjected to a provision for a minimum load independently of the provision for a minimum consignment.|| The increasing size of the trucks in use on the railway system rendered such provisions necessary from the railway point of view;¶ and the large traders demanded concessions in rates in consideration of large consignments. These large traders, whose business required relatively small consignments, together with the small traders, objected to a high minimum of weight at a certain rate, because they were unable to take advantage of the reduction by consigning in large quantities. It happened that the agricultural interest was involved in this question, not

* "In no important act is there any limit of consignment for tonnage rate." Mr. Courtenay Boyle, *Provisional Order Bills Report*, 1891, Part I., p. 503.

† *Provisional Order Bills Report*, 1891, Part I., p. 497 *et seq.*

‡ *Ibid.*, p. 503.

§ *Ibid.*, p. 504.

|| These are in Class 10. *Ibid.*, pp. 504 and 510.

¶ In 1860 the largest truck had a capacity of 6 tons, in 1891 of 10 tons. *Provisional Order Bills Report*, 1891, Part I., p. 510, Queries 3475 and 3476. See also *Proceedings of Institution of Mechanical Engineers*, 1884, p. 416. "The average daily load of goods trucks does not exceed one-half." *Ibid.*, p. 431.

so much because agricultural produce was usually sent in lots of less than 4 tons,—for, as it happened, the consignments usually exceeded that quantity,* — but because artificial manures were customarily sent in lots of 2 tons and under 4 tons.† There were also many products of iron manufacture which came in the same category as chemical manures in this respect. These interests prevailed at the Board of Trade inquiry, and the minimum consignment in the heavy class at a low rate was fixed at 2 tons.‡ But this did not satisfy the railway companies nor the large traders,§ and they succeeded in inducing the committee to raise the minimum from 2 to 4 tons.|| Perhaps the chief consideration which weighed with the committee was that the railway companies had reduced actual rates for long-distance traffic on the basis of a 4-ton limit, and that reduction to a 2-ton limit might weaken the argument for maximum rates approximating to the existing actual rates. The differential rate as finally adjusted follows the classification. Heavy goods are charged according to the rate in Class A, if they are in 4-ton lots; according to Class B, if in lots of less than 4 tons; and in Class C, if in lots of less than 2 tons.¶ Apart from the inferior limit of consignment, there is the question of graduated rates for quantities. The Board of Trade proposed to divide heavy traffic into three divisions as regards weight of consignment: (1) consignments under 10 tons; (2) those between 10 and

* *Provisional Order Bills Report*, 1891, Part I., p. 510, Query 3470.

† *Ibid.*, p. 504.

‡ *Ibid.*, p. 487 *et seq.*

§ *Ibid.*, p. 488.

|| *Ibid.*, p. xxxi.

¶ *Ibid.*, pp. 530 and 540; also p. xxxii.

NOTE.—In England the goods ton is 2,240 pounds, and the mineral ton is 2,352 pounds. In America the ton is 2,000 pounds. The ratio of American to English weights is thus 1 to 1.12 and 1 to 1.176 for goods and minerals respectively. These important differences are generally overlooked in attempts to compare rates.

250 tons; (3) those above 250 tons.* These figures were employed to define precisely the indefinite expressions "truck-load" and "train-load." But the traders in 4-ton consignments now united with the traders in smaller consignments to defeat the 10 to 250 ton proposal, which was clearly made in the interests of the large traders.† Since, again, high maximum powers were what the railways wanted,‡ and since the railways and some of the traders united their forces, the stronger battalions were against the proposal; and so the committee were constrained to throw it out. The differentiation of rate thus existing is that indicated above in connection with minimum consignments. Having offended the small traders by fixing the minimum consignment at 4 tons, the committee propitiated them by rejecting the train-load proposal of the Board of Trade.§

(c) The third ingredient of the conveyance rate is the payment for the use of the wagon. The clause dealing with this point, as finally adjusted, states that in cases where the railway company do not provide trucks "the charge authorized for conveyance shall be reduced by a reasonable sum, which shall, in case of difference between the company and the person liable to pay the charge, be determined by an arbitrator to be appointed by the Board

* *Provisional Order Bills Report*, 1891, Part II., p. 1075. As regards the 10 and 250 ton gradation, the reduction of rate applies only to Classes A and B; as regards the 10-ton gradation (the second division), it applies only to Classes C and 1. *Ibid.*

† There were alleged to be only 6 or 7 coal-traders in London who could deal with train-loads. *Ibid.*, p. 1133, Query 10601. For the arguments of the large traders, see *Statement British Iron Trade Association* [1890], p. 18.

‡ The railway companies denied that there was any material difference in cost between handling traffic in truck-loads collected from several different traders and handling traffic in train-loads forwarded by individual traders. Some colliery owners agreed with this view. *Provisional Order Bills Report*, 1891, Part II., Query 10211; also Query 10756.

§ *Provisional Order Bills Report*, 1891, p. xlix.

of Trade." * The provision of trucks is not obligatory upon the railway in respect of Class A and certain other selected goods in Class B,—lime, for instance. In the older Acts the charge for wagon hire was not invariably specified; but, where specified, it was, as a rule, one-eighth of a penny ($\frac{1}{8}$ cent) per ton per mile.† The traders were exceedingly anxious to have this portion of the dissected rate definitely fixed.‡ Some urged that it should be fixed at one-half the rate mentioned.§ But the differences between one railway and another, and between one set of traders and another, were found to be so great that the charge for wagon hire was not fixed at a uniform specific rate; but it was held to be included in the conveyance rate, specification to be made by the railway companies to the traders on the general principle of specification of ingredients of rate.

The question is an exceedingly difficult and important one; for in practice it may occur that the rate for Class A, which is exclusive of wagon hire,—the railway companies not being obliged to provide wagons for that class,—may, when the wagon hire is added, actually exceed the rate for Class B, where the companies do customarily provide the wagons. The rate of wagon hire must therefore be kept at a point below that under which this state of charge would arise. It seemed difficult to do this arbitrarily with equal justice to all the interests; and therefore, as in other cases of a similar order, the matter was left for settlement by arbitration by the Board of Trade in case of need.

In connection with this the following features of the

* *Provisional Order Bills Report*, 1891, Part I., p. 55. The number of traders' trucks on the London & North-Western Railway system alone amounts to 84,000, while the number of trucks owned by the railway company is only 54,550. *Railway and Canal Traffic Act*, 1888, Return in pursuance of Sect. 32, etc., c. 5930, 1890, p. 10.

† *Provisional Order Bills Report*, 1891, Part I., p. 263. ‡ *Ibid.*, p. 1056.

§ Statement by Mining Association of Great Britain, quoted *Ibid.*, p. 263.

English system are to be noted. The return of empty trucks is not in present practice made the subject of a separate charge.* The wagons of private owners or companies are subject to very great detention. A wagon makes, for example, on an average, only two journeys a month, when employed in traffic between the north and the south of England.† A journey of twenty-five miles usually takes a wagon a week to go and return.‡ The interests of the railway companies and of the wagon-owners are, up to a certain point, identical; and then they become divergent. It is important for both that a relatively large charge should be made for wagon hire; for the railways charge those who do not have wagons the prescribed rate, while the wagon-owners get the prescribed rate by way of rebate.§ On the other hand, it is not to the interest of the railway companies to have the specified rate for wagons too high, otherwise the rebate to the owners of private wagons would be excessive.|| In consequence of the strength of the interests of owners of wagons,—not wagon companies, but traders carrying their own traffic in their own wagons,—a proviso was inserted, giving the owners of wagons power to charge demurrage against the railway companies for detention of trucks,¶ the railway companies having similar powers of charge for detention of trucks belonging to them.

D. The railway companies throughout the country had, by common consent, adopted the classification of the

* *Provisional Order Bills Report*, 1891, Part I., p. 419 *et seq.* Occasionally it happens that the railway company use these private trucks, admittedly with or without permission. See *Ibid.*, p. 421.

† *Ibid.*, p. 246.

‡ *Ibid.*, p. 251.

§ Compare *Report from the Joint Committee of the House of Lords and the House of Commons on the Railway Rates and Charges Provisional Order Bills*, 1891, Part I., p. 160.

|| *Ibid.*, p. 242.

¶ *Ibid.*, p. 209.

Railway Clearing House. This classification had no statutory force. It simply embodied the customs of the trade. It had not been made: it had grown. There were 4,000 specified articles, and the recognized plan of altering rates was to move the article in which the change was to take place from one class to another.* The railway clearing-house classification was therefore subject to constant change. Lord Balfour of Burleigh and Mr. Courtenay Boyle conferred with the railway managers and the traders for thirteen days upon classification,† and the outcome was the classification proposed by the Board of Trade in the Provisional Order Bills of 1891. Although the proposed classification was based upon that of the railway clearing house, it was, necessarily, entirely different in effect. The old classification was subject to alteration from day to day, as the movements of rates demanded.‡ The new classification was immutable, at all events, without the sanction of Parliament. The first step of the Board of Trade was to reduce the number of the specified articles from 4,000 to 2,000.§ The resulting classification is really entirely empirical. It is not fixed on any logical basis. Any serious change in established practice would have been open to the charge of giving particular districts or particular trades undue advantages over others.

* Cf. *The Railway and Canal Traffic Act*, 1888, by W. A. Hunter, LL.D., M.P., London, 1889, p. 82.

† Yet the traders' counsel pleaded before the Joint Committee that the classification satisfied neither party. *Provisional Order Bills Report*, 1891, Part I., p. 488.

‡ English railway rates do not fluctuate nearly so much as rates in America, while sudden and considerable changes are almost unknown. The changes following upon the legislation of 1891-92 are the most violent that have taken place in England for many years.

§ The Lancashire and Cheshire Conference, which was the exponent in general of the traders' grumbles, complained of this reduction in number of specified articles; but they did not object to the principles on which the classification had been based. *Provisional Order Bills Report*, 1891, Part I., p. 487.

The principles of classification urged by an influential body of traders* were these:—

1. That no article should be rated higher than it is at present (*i.e.*, under the railway clearing-house classification as it existed in 1890). The traders have now got a classification which should be amended, not increased.
2. Classification means liability to damage or special expense.
3. Undamageable articles should all be placed in the lowest category, which should be varied in proportion to damageability and costliness of carriage.
4. The nature of a commodity, its degree of safeness, its easiness of transit, its bulk, its quantity, and its traffic-producing qualities are the considerations that should regulate its classification.

This statement illustrates the attitude of the traders. The principles upon which the Board of Trade actually proceeded were the following:†—

(*a*) Value; (*b*) damageability; (*c*) risk; (*d*) weight in proportion to bulk; (*e*) facility for trading; (*f*) mass of consignments; (*g*) facility for handling.

The Board of Trade, in seeking to attain uniformity, was obliged, on one hand, to invade the privileges of the railway companies, and, on the other, to trespass upon the feelings of the traders by raising the classification of certain goods.‡ In cases of new articles arising, the Board of Trade is now empowered, under Section 24 of the Act of 1888,§ to class such articles; but it has no power to alter the classification or the maximum rates fixed by the Provisional Order Confirmation Acts of 1891 and 1892.

In the fixation of the maximum rates, the Board of Trade applied a uniform scale to the railway companies,

* The British Iron Trade Association. See *Statement* [1890], p. 19.

† *Provisional Order Bills Report*, 1891, Part I., p. 18.

‡ The bulk of the discussion upon classification was in connection with manufactured iron. See Mr. Courtenay Boyle's statement, *Provisional Order Bills Report*, 1891, Part I., p. 612 *et seq.*

§ 51 & 52 *Vict.*, c. 25, § 24, subsection 11.

so far as seemed practicable. Yet the differences are not unimportant. The following table exhibits the mode in which the scale has been applied:—

MAXIMUM RATES.

I.	II.	III.
Absolutely the same.	Slightly higher than List I.	Slightly higher than List II.
L. & N. W. Ry.	Midland	Brighton
Great Western	Great Eastern	South-Western
Great Northern	—	South-Eastern
—	—	L., C. & Dover

The chief differences are in Classes A and B. In the higher classes the rates are practically the same.*

The following tables † illustrate the differences between the proposals of the Board of Trade, the railway companies, and the traders:—

TABLE A.

BOARD OF TRADE CUMULATIVE SCALE.

CLASS.	For first 20 miles.	For next 30 miles.	For next 50 miles.	For remainder of distance.
C	1.80d.	1.50d.	1.30d.	0.70d.
1	2.20	1.85	1.40	0.90
2	2.65	2.30	1.70	1.35
3	3.10	2.65	1.75	1.65
4	3.60	3.15	2.20	1.80
5	4.30	3.70	3.25	2.30

* Lord Balfour of Burleigh, *Provisional Order Bills Report*, 1891, Part I., p. 432. The terminals are uniform. See *Ibid.*, p. liv.

† From *Provisional Order Bills Report*, 1891, pp. lv, lvi.

TABLE B.

RAILWAY COMPANIES' CUMULATIVE SCALE.

Alleged to be the Equivalent of the Normanton Scale.

CLASS.	For first 20 miles.	For next 30 miles.	For next 50 miles.	For remainder of distance.
0	2.40d.	1.30d.	1.10d.	0.90d.
1	2.80	1.70	1.60	1.20
2	3.00	2.50	1.80	1.70
3	3.30	2.80	2.40	2.20
4	3.90	3.40	3.00	2.60
5	4.50	4.00	3.30	2.75

TABLE C.

TRADERS' CUMULATIVE SCALE.

CLASS.	For first 20 miles.	For next 30 miles.	For next 50 miles.	For remainder of distance.
0	1½d.	1½d.	1d.	¾d.
1	1½	1½	1½	1
2	2	1½	1½	1½
3	2½	2	1½	1½
4	3	2½	2½	2
5	3½	3	2½	2½

The above tables contain exclusively suggested maximum "conveyance" rates.

OLD MAXIMUM RATES.*

	Per Ton per Mile.
Coal, coke, etc. (now Class A):	
Up to 50 miles	1½d.
Beyond 50 miles	¾d.

* From the leading Act of the London and North-Western Railway, 1846 (9 & 10 Vict., c. 204). Cf. also Hunter, *The Railway and Canal Traffic Act*, 1888, London, 1889, p. 142.

	<i>Per Ton per Mile.</i>
Heavy goods (approximately Class B):	
Up to 50 miles	1½d. to 1¾d.
Beyond 50 miles	1d. to 1½d.
Heavy goods (approximately Class C):	
Up to 50 miles	2d.
Beyond 50 miles	1½d.
Higher goods (Classes 1 to 5):	
Up to 50 miles	2½d. to 3½d.
Beyond 50 miles	2d. to 3d.

NEW MAXIMUM RATES.

CUMULATIVE SCALE PROPOSED BY BOARD OF TRADE AND NOW
ADOPTED.*

Rates per Ton per Mile in Fractions of 1d. (2 cents).

	For the first 20 miles or any part of such distance.	For the next 30 miles or any part of such distance.	For the next 50 miles or any part of such distance.	For the remainder of the distance.	Station terminal at each end.
Class A, minerals, etc., exclu- sive of charge for trucks . .	0.95d.	0.85d.	0.50d.	0.40d.	3.00d.
Class B, including trucks . .	1.60	1.20	0.80	0.50	
Class C	1.80	1.50	1.20	0.70	
Class 1	2.20	1.85	1.40	0.90	
Class 2	2.65	2.30	1.70	1.35	
Class 3	3.10	2.65	1.75	1.65	
Class 4	3.60	3.15	2.20	1.80	
Class 5	4.30	3.70	3.25	2.30	

* *Provisional Order Bills Report*, 1891, pp. l, liv, lv.

JAMES MAVOR.

THE BIMETALLIST COMMITTEE OF BOSTON AND NEW ENGLAND.

ON February 5, 1894, there was held in Boston a meeting of gentlemen interested in the promotion of international bimetallicism. They organized themselves into a committee, and issued the following declaration:—

The Committee is formed for the purpose of promoting the establishment of international bimetallicism upon the general plan of the Latin Union, but with a broader basis. Those concerned in the movement, while earnestly opposed to the free coinage or to any increased use of silver by this country independently of international action and agreement, believe that the repeal of the purchase clause of the Sherman Act affords a fitting and fortunate opportunity for advancing the cause of international bimetallicism. They believe that the day is not far distant when the necessities of commerce will compel an international use of silver as well as of gold in currencies throughout the world.

Fifty gentlemen signed this declaration, nearly all residents of Boston, and comprising in their number some of the best known business men in that capital,—bankers, manufacturers, merchants, railroad men, lawyers, and State and national officials, past and present. Few, if any, of them can be called mere theorists. The membership of the Committee is much increased since its origination, gentlemen from nearly all parts of New England being represented in it. No effort, whatever, has been made to swell the roll. Among those first approached, seven out of eight, if not nine out of ten, acceded at once; and, since the publication of the above manifesto, letters have been received almost daily from persons wishing to join. The popularity of the movement has been surprising, and proves the mistake of those East and West who have supposed New England to be given over to gold monometallism.

A number of associate members have been admitted from other portions of the country, and it is likely that co-operating committees will be created in several cities. It is thought well, however, from every point of view, to make the organization a preponderantly Eastern affair, that it may not be

confounded with the league for free silver, which has so numerous supporters in the West.

In offering a brief account of the motives which led to this act of association, the writer has no authority to speak except for himself. It is to be presumed that not all the members were affected equally by any given line of consideration. With some, one argument would be decisive; with others, another. The general drift of their thought, however, is perhaps fairly presented in the following paragraphs.

The Committee does not propose to make use of any political agency, or to attempt to influence, otherwise than through public opinion, the action of the administration or of Congress. Its work is to be educational. It will endeavor to instruct the community in what it considers the only sound theory of hard money, that of international bimetallism, preparing the public sentiment of the country for the adoption of this so soon as Great Britain's concurrence can be secured. For this the committee does not think that the United States ought to sue. Great Britain is far more interested in the silver question than we, and, now that we no longer purchase silver, is rapidly coming to see that she must move for an amendment of the monetary situation, asking our assistance instead of our asking hers.

Why, then, it may be urged, should any action favoring bimetallism be taken in this country? For one thing, to assure the English bimetallists in their gallant and gaining fight, as well as their opponents, that in repealing the Sherman Act the United States has not abandoned the cause of silver full money, as the gold monometallist press in London and New York so assiduously represents. By the loyal and patriotic support which they gave to the effort for repeal, the bimetalists did not mean to imply the slightest faltering in their belief that the restoration of silver is indispensable to the proper progress of civilization. They view the advance of gold monometallism as a grave threat to production and trade, to the welfare of the masses, and even to the stability of society; and they consider that no small part of the industrial and social suffering of the past twenty years is traceable to this cause.

These convictions needed public expression for another reason. The persistent effort of certain Eastern newspapers to represent our cessation of silver purchases as the final doom of silver has had a most unhappy effect upon the South and the West. It has led people there to think of the East as opposing the coinage of silver, free or restricted, national or international, at any ratio. From the painful effects of dear gold, coupled with the conviction that the East was resolved to rivet and perpetuate these, there was fast arising an intense and angry sectionalism, which boded the republic no good. The rapid multiplication of Populists is one sign of this. Much fanaticism doubtless attaches to that movement, yet it may be more rather than less dangerous on that account.

The Committee is not unaware that its existence and work may be construed as an encouragement to the ultra silver party. Why, it is said, are you willing to encourage a policy which you admit to be unsafe? The reply to this is that some of the premises of the free silver doctrine are irrefragable, and that it is every way much more prudent to admit than it is to deny the truth of these. In contending that gold has immensely appreciated since 1873, and that this, with the fall of general prices which it involves, is a terrible evil, our Western friends are perfectly right. To this extent the facts, the logic, the ethics, of the situation, are with them; and they know it. Only their proposed remedy is to be criticised. Moreover, they are, as a class, quite as honest and patriotic as those who oppose them. If we would bring them to reason, our obvious policy is to admit whatever is good in them and in their views. This attitude of the bimetallist committee has already proved wise, as is known by numerous communications received from the West. The power of the extreme silverites is broken. Their party is divided. Many who have hitherto adhered to them subscribe to our platform, admitting that it is unwise to attempt "home bimetallism" so long as there is any reasonable hope of making bimetallism international.

Nothing else so confirms the radical silverites in their course as the expression by papers and public speakers in the East of

the conviction that no international mintage agreement can ever be secured. No other line of representation so intensifies the silver craze. The impossibility of international co-operation in monetary policy,—that is exactly what the most zealous silver organs and advocates have been reiterating for years. Why wait for England? What have we to do with France or Germany? During a recent visit to the silver States such questions rang in the writer's ears wherever he went. It is safe to say that, if the gold papers should succeed in convincing the West and South that other nations will never join us in coining silver, they would do more to place this country on a silver basis than can be accomplished in any other way.

The above were probably the chief prudential reasons for the rise of the Bimetallist Committee. Other considerations reached over more into the realm of theory. It is taken for granted that gentlemen desiring the "establishment of international bimetallism upon the general plan of the Latin Union" accepted in all its main outlines the bimetallist theory of hard money and the usual reasonings in favor of remonetizing silver. It is not proposed to repeat these here. Such gentlemen were of course unable to deny the progressive scarcity of gold, or to see much force in the well-known arguments for gold monometallism. Their difficulty with this line of reasoning we will not now take up. There is, however, much evidence favoring bimetallism, so new that it has not yet been publicly discussed in America by either party to this controversy, which has had much to do with the origination of the Committee. The remainder of the present article will give a glance at a few representative items of this new evidence.

There is impressive evidence proving that, at least until late in 1893, silver has not depreciated,—not lost in value; that, therefore, there has been a fall in general gold prices, an appreciation of gold, which has proceeded almost altogether from the decreased supply of that metal and the enhanced demand for it, and but little from intrinsic cheapening in cost of production. The steadfastness of silver value has long been known, so far as concerned India and Mexico;

but it is now certain that the metal has held its own quite as well in China. The *Journal of the Royal Statistical Society*, London, for December, 1893, contains upon this subject a most interesting and valuable article. It is from the Foreign Office Report No. 305, 1893, of Mr. G. Jamieson, her Majesty's Acting Consul-General at Shanghai, who has studied Chinese trade for many years and under most favorable conditions. His investigations assure him that China has not made any net import of silver from Western markets for a number of years, but has exported instead, though not largely.

The view that silver has not since 1870, at least until the closing of the Indian mints, lost in value, is in a remarkable manner borne out by Mr. Jamieson's researches. I quote:—

1. As regards articles which are both produced and consumed in China silver prices have, on the whole, tended to decline. There is a moderate rise in a few articles, principally foodstuffs; but all over there is a decline of about 9 per cent.

2. As regards articles of native origin exported to foreign countries, the silver price has not advanced with the fall of exchange. Prices, on the whole, are almost exactly on the level of the years 1870 to 1874.

3. As regards articles of foreign manufacture or production imported for sale in China, the average price in silver has declined very considerably. The Chinese can now obtain their supplies at a less cost even in silver than they could twenty years ago by some 26 per cent. In other words, the purchasing power of silver has not declined in respect to any of the classes of commodities, and has even considerably increased in respect of the first and last classes.

This proves silver's stability in value for the world at large, as well as for China, and in the following manner. China produces two staples, tea and silk, which are in demand everywhere; while silver, ever welcome in that immense country, has been perfectly at liberty to flow thither in exchange for these staples. Had silver bullion lost aught of its purchase power in America or in Europe, nothing on earth could have hindered it from going to China in vast quantities, such as to have made it less valuable there as well,—a phenomenon which must have revealed itself in higher prices in China. That this has not occurred is striking evidence that, at any rate till quite recently, what most have been calling depreciation of silver

has been, strictly and scientifically considered, the appreciation of gold.

Professor Lexis, of Göttingen, followed by Mr. Hans Forssell, of Sweden, who delivered an able address on the subject before the Brussels Conference, fears that the friends of silver full money do not sufficiently notice the progressive scarcity of gold. Lexis expresses the conviction that, supposing a bimetallic league of States, gold, even if rated very high in comparison with silver, might in the course of years attain a premium, not through any drain from without the league, but by pressing demand within. In the view that gold is henceforth to become more and more scarce, all experts concur. However, the considerable new output of gold the past year, nearly certain to continue for a decade or two, is sufficient to deprive Lexis's scruple of all weight, while not affecting at all the desirableness of remonetizing silver.

In an article in the *National Review* for December, 1893, Mr. Moreton Frewen, a specialist upon the subject treated, presents the following :—

A single camp in the Transvaal, unknown seven years since, is now producing each month as much gold as either the United States or Australia. The returns of the Johannesburg gold-fields show this remarkable increase :—

<i>Year.</i>	<i>Total Annual Average, Ounces.</i>	<i>Monthly Output, Ounces.</i>
1888	230,189	19,182
1889	369,551	30,796
1890	494,810	41,234
1891	729,233	60,769
1892	1,210,865	100,905

The returns for the twelve months of 1893 have been as follows :—

<i>Ounces.</i>	<i>Ounces.</i>
January 108,374	July 126,169
February 93,252	August 136,069
March 111,474	September 129,585
April 112,053	October 136,682
May 116,911	November 138,640
June 122,907	December 146,357
Total, 1,478,473	

And, unlike the quickly exhausted supply of alluvial gold from the riverbeds of California and Australia, these African mines, which have been

proved with the diamond drill to a great depth, may be counted on to show an increasing production for at least a generation to come. To northwards also of the Boer Republic the various gold-fields of Mashonaland are now attracting the greatest interest to a region the conditions of which are admirably suited to Anglo-Saxon colonization. The quartz veins near Victoria, it should be added, are on the contact of granite with slate,—a formation which, in Grass Valley, California, and elsewhere, has been found to carry gold to an immense depth.

And not only are discoveries in these new gold-fields of extreme importance at the present crisis, but the scientific development of the next few years, in connection with the cheap reduction of gold ores, may probably offer quite a new future to what has hitherto been a too precarious and speculative industry. While the recent purely mechanical improvement in the separation of gold from pyritic ores in itself heralds great changes not as yet at all adequately recognized, yet it is only when we arrive at the conjunction of chemistry and electricity that the coming evolution in the metallurgy of gold really commences to unfold itself. It is doubtful whether even the great African gold-field could be worked at a profit but for the discovery that cyanide of potassium is a cheap solvent of those fine particles of gold which would otherwise float away with the "tailings," and be lost. At the present time not less than £100,000 monthly is being secured at Johannesburg by the use of cyanide; and as yet the application of cyanide is of the crudest and most wasteful kind. It has recently been discovered that, by the induction of an electric current into the cyanide solution, not only is the solvent power of cyanide greatly energized, and the cyanide, by the internal introduction of hydrogen, also protected against decomposition of those baser metals generally contained in gold ores, but, in addition to this, the gold which has been absorbed into the solution is again quickly metallized by the electric current, and precipitated rapidly on an amalgamated copper bottom without the necessity of zinc or any other reagent.

Much has been made of the fact that gold monometallism spreads as it does from country to country. Soon after Germany demonetized silver, the Latin Union ceased coining it for standard money, as did Russia and Holland. The Scandinavian States went further, extruding it from their currency altogether, save for subsidiary coins. Roumania later followed this example, and, still later, Austria. Holland plants her colonies as well as herself upon the yellow metal, and now Great Britain attempts the same with her immense Indian empire. People point to this steady march of the sole gold system as if it were beyond question a phase of advancing civilization. Commerce, it is declared, is tired of silver; only gold will satisfy it. This is a natural law of progress, and it is irrational as well as useless to oppose it.

History has been reread since this thought gained currency, and has shown it to be an illusion. Gold monometallism has not been spread by any rational conviction, but by perverse legislation. The adoption of gold as the sole ultimate money by any considerable group of commercial nations compels contiguous States to follow, whether they will or not, irrespective of the rationality or intrinsic desirableness of the change.

No doubt, since Europe closed its mints to the white metal, the gold system has obtruded itself upon one country after another in a perfectly natural manner; but this in no sort proves that the process was wisely begun. Disease works as naturally as health, devolution as evolution. The truth seems to be that, however natural what has followed, the demonetization of silver was not natural or the result of thought, but the reverse. The policy was not debated, but entered upon in entire blindness. Neither in England, in Germany, nor in the United States, the lands where it was inaugurated, was any legislator at the time awake to the stupendous significance of the act. Hardly a man in public or in private life then so much as dreamed of its grave and far-reaching consequences.

The statement which one hears so often now, regarding the progress of wealthy countries from silver to gold, was not the belief of Locke, who declared that "gold is not the money of the world, or measure of commerce, nor fit to be so." Sir Isaac Newton and Ricardo also give no countenance to that modern fancy. It had birth in the imagination of the first Lord Liverpool, who gives us to understand that the English people, by general consent and without any influence from public authority, had by 1698 come to prefer silver to gold. The noble lord was entirely mistaken in this, as Dana Horton and Sir David Barbour, following Ricardo and Lord Ashburton, have shown. Ricardo explicitly says that the English took up gold, not because better fitted than silver for the business of a rich country, but because the English law overvalued gold, making it hard for silver to circulate. The English preferred gold during the eighteenth century only in the sense in which the people of the United States preferred it after 1834, and before that date preferred silver. So ignorant was England then of monetary history and theory that the second Lord

Liverpool had no difficulty in foisting his father's error upon Parliament. Silver was demonetized, and Great Britain thus started upon a false track. The French mint, so near, doing bimetallic work for both nations, prevented the evil from at once revealing its virulence; and the high career of Great Britain commercially, prepared for when the nation was bimetallic, evolved through association the baseless idea that gold money and commercial greatness had some logical connection.

In 1872-73 this idea greatly influenced Germany in favor of laying silver aside; though with it wrought also certain other motives, such as the wish for simplicity in monetary system, dislike of France, and, most of all, what so strongly inclined the Paris Conference of 1867 toward gold monometallism, the then plentifulness of gold. Demonetization of silver by the United States in 1873 was also motivated largely by the example of England and the thought of simplicity. That no partner to the deed understood or had seriously considered its bearings has since been abundantly proved. It is thus quite certain, I believe, that the ostracism of silver began in ignorance, not at all in that circumspection and deliberation which must have marked it, had it been a true instance of economic evolution, like the discarding of stage-coaches or the abolition of slavery.

E. BENJ. ANDREWS.

BROWN UNIVERSITY, March 16, 1894.

ALEXANDER HAMILTON AND ADAM SMITH.

It has often been asserted that Hamilton was familiar with Adam Smith's *Wealth of Nations*. In most cases, probably, the statement has been based upon a passage in J. C. Hamilton's *History of the Republic*, ii. 516, which reads, "Having previously perused the earlier writers, he now entered upon a deliberate examination of the political economy of Adam Smith, and wrote, while a member of Congress, an extended commentary upon his *Wealth of Nations*, which is not preserved." * That this passage is the common source of the statement is inferred from the fact that, with the three exceptions following, no indication has been offered of the nature of the evidence upon which it is based. Professor Dunbar, in his sketch of "Economic Science in America, 1776-1876," says that Hamilton, in some parts of his Report on Manufactures, was influenced by his familiarity with Adam Smith, and significantly adds that Hamilton pointed out errors in Smith's concessions to the Physiocrats.† Professor H. C. Adams, in his essay on "Taxation in the United States, 1789-1816," says that Hamilton drew his anti-Physiocratic arguments from the *Wealth of Nations*.‡

The first writer, apparently, to make a thorough examination of the question, and to set forth definite results with references, is Professor Ugo Rabbeno, in his recent work on *Protectionism in the United States*.§ Professor Rabbeno shows clearly that Hamilton quotes Adam Smith. The cases were so interesting that I thought it would be worth while to go over the ground carefully, and present a list of passages

* Stated upon the authority of "P. S. Duponceau, a distinguished civilian of Philadelphia."

† *North American Review*, vol. 122, p. 131.

‡ p. 21, Professor Adams states that he is puzzled by Hamilton's use of quotation-marks in his report, but that some reference is made to the *Wealth of Nations* may be seen by comparing the report with Book IV. chap. ix.

§ *Protezionismo Americano: Saggi Storici di Politica Commerciale*. Milano: Fratelli Dumolard, 1893.

related to each other in parallel columns. Rabbeno discovered the three most striking instances of relationship,—the criticism of the doctrines of the Physiocrats, the analysis of the advantages of the division of labor, and the advantages of increased means of transportation. Of the parallels subjoined, numbers 6, 7, 8, 10, 12, 19, are mentioned by Rabbeno. The rest, so far as I know, are here indicated for the first time.

Hamilton nowhere in the report mentions Adam Smith's name. Why should he have concealed the source of such valuable elements in his report? The answer, I think, is a simple one,—political expediency. The citation of an English writer on Political Economy would have weakened rather than strengthened his case. A friend of mine, recently engaged as a member of a State tax commission, drew material for a passage in their report from one of the leading living American writers on taxation, and proposed to give the original author credit; but the chairman of the commission decided that, on grounds of expediency, it would be better not to quote the authority of a political economist. The *Wealth of Nations* is cited from Rogers's edition and Hamilton's report from Professor Taussig's reprint in *State Papers and Speeches on the Tariff*, published by Harvard University. In this form the report takes up 107 pages as compared with 92 pages in J. C. Hamilton's edition of Hamilton's *Works*.

SMITH.

[Citations from Rogers's edition.]

1.

Though they [*i.e.*, the colonies] had not, therefore, been prohibited from establishing such manufactures, yet in their present state of improvement a regard to their own interest would probably have prevented them from doing so. (*Wealth of Nations*, Book IV. chap. vii., ll. 162.)

HAMILTON.

[Citations from Taussig's reprint in "State Papers and Speeches on the Tariff."]

1.

The expediency of encouraging manufactures in the United States, which was not long since deemed very questionable, appears at this time to be pretty generally admitted. (*Report on Manufactures*, 1.)

2.

[For parallels cf. Adam Smith's chapter "Of the Natural Progress of Opulence" (l. 380-386), especially pp. 384 and 385; also portions of chapter iv., Book III., particularly (l. 418-419).]

2.

[The passages on pp. 2, 3, in quotation-marks, are a condensed statement of Adam Smith's teaching in reference to industrial development.]

3.

In our North American colonies, where uncultivated land is still to be had on easy terms, . . . when an artificer has acquired a little more stock than is necessary for carrying on his own business in supplying the neighboring country, he does not, in North America, attempt to establish with it a manufacture for a more distant sale, but employs it in the purchase and improvement of uncultivated land. From artificer he becomes planter, and neither the large wages nor the easy subsistence which the country affords to artificers can bribe him rather to work for other people than for himself. He feels that an artificer is the servant of his customers, from whom he derives his subsistence, but that a planter who cultivates his own land and derives his necessary subsistence from the labor of his own family is really a master, and independent of all the world. (Book III. chap. i., l. 384.)

Cf.

3.

. . . The constant allurements to emigration from the settled to the unsettled parts of the country, the facility with which the less independent condition of an artisan can be exchanged for the more independent condition of a farmer. (p. 3.)

4.

By restraining, either by high duties or by absolute prohibitions, the importation of such goods from foreign countries as can be produced at home, the monopoly of the home market is more or less secured to the domestic industry

4.

[The following paragraph of Hamilton's summarizes the doctrine in Smith's chapter "Of Restraints upon the Importation from Foreign Countries of such Goods as can be produced at Home," Book IV. chap. ii. Two or three

employed in producing them. (Book IV. chap. ii., il. 25.)

That this monopoly of the home market frequently gives great encouragement to that particular species of industry which enjoys it, and frequently turns towards that employment a greater share of both the labor and stock of the society than would otherwise have gone to it, cannot be doubted. But whether it tends either to increase the general industry of the society or to give it the most advantageous direction is not, perhaps, altogether so evident. (*Ibid.*)

If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry employed in a way in which we have some advantage. (il. 29.)

It could therefore have been purchased with a part only of the commodities, or, what is the same thing, with a part only of the price of the commodities which the industry employed by an equal capital would have produced at home, had it been left to follow its natural course. The industry of the country, therefore, is thus turned away from a more to a less advantageous employment, and the exchangeable value of its annual produce, instead of being increased, according to the intention of the law-giver, must necessarily be diminished by every such regulation.

By means of such regulations a particular manufacture may sometimes be acquired sooner than it could have been otherwise, and after a time may be made at home as cheap or cheaper than in the

parallel passages reveal the relationship.]

If, contrary to the natural course of things, an unseasonable and premature spring can be given to certain fabrics by heavy duties, prohibitions, bounties, or by other forced expedients, this will only be to sacrifice the interests of the community to those of particular classes. Besides the misdirection of labor, a virtual monopoly will be given to the persons employed on such fabrics, and an enhancement of price, the inevitable consequence of every monopoly, must be defrayed at the expense of the other parts of the society. It is far preferable that those persons should be engaged in the cultivation of the earth, and that we should procure, in exchange for its productions, the commodities with which foreigners are able to supply us in greater perfection and upon better terms. (p. 3.)

[*Cf.* this also with Smith's exposition of the Physiocratic criticism of the restriction of foreign trade (il. 256-57).]

There remains to be noticed an objection to the encouragement of manufactures of a nature different from those which question the probability of success. This is derived from its supposed tendency to give a monopoly of advantages to particular classes at the expense of the rest of the community, who, it is affirmed, would be able to procure the requisite supplies of manufactured articles on better terms from foreigners than from our own citizens, and who, it is alleged, are reduced to a necessity of paying an enhanced price for

foreign country. But, though the industry of the society may be thus carried with advantage into a particular channel sooner than it could have been otherwise, it will by no means follow that the sum total, either of its industry or of its revenue, can ever be augmented by any such regulation. (ii. 30.)

5.

According to this liberal and generous system, the most advantageous method in which a landed nation can raise up artificers, manufacturers, and merchants of its own, is to grant the most perfect freedom of trade to the artificers and manufacturers and merchants of all other nations. It thereby raises the value of the surplus produce of its own land, of which the continual increase gradually establishes a fund, which in due time necessarily raises up all the artificers, manufacturers, and merchants whom it has occasion for. (Book IV. chap. ix., ii. 256.)

6.

It is because the labor of the cultivators; over and above paying completely all those necessary expenses, affords a net produce of this kind, etc. (Book IV. chap. ix., ii. 249.)

Artificers and manufacturers, in particular, whose industry, in the common apprehensions of men, increases so much the value of the rude produce of land, are in this system represented as a class of people altogether barren and unproductive. Their labor, it is said, replaces only the stock which employs them, together with its ordi-

whatever they want by every measure which obstructs the free competition of foreign commodities. (p. 5.)

5.

One of these turns on the proposition that industry, if left to itself, will naturally find its way to the most useful and profitable employment. Whence it is inferred that manufactures, without the aid of government, will grow up as soon and as fast as the natural state of things and the interest of the community may require. (p. 29.)

6.

[Hamilton's summary of the Physiocratic doctrine follows Adam Smith closely. (See Smith, Book IV. chap. ix.)]

Labor bestowed upon the cultivation of land produces enough, not only to replace all the necessary expenses incurred in the business, and to maintain the persons who are employed in it, but to afford, together with the ordinary profit on the stock or capital of the farmer, a neat surplus, or rent, for the landlord or proprietor of the soil. But the labor of artificers does nothing more than re-

nary profits. That stock consists in the materials, tools, and wages advanced to them by their employer, and is the fund destined for their employment and maintenance. Its profits are the fund destined for the maintenance of their employer. Their employer, as he advances to them the stock of materials, tools, and wages necessary for their employment, so he advances to himself what is necessary for his own maintenance; and this maintenance he generally proportions to the profit which he expects to make by the price of their work. Unless its price repays to him the maintenance which he advances to himself, as well as the materials, tools, and wages which he advances to his workmen, it evidently does not repay to him the whole expense which he lays out upon it. The profits of manufacturing stock, therefore, are not, like the rent of land, a net produce which remains after completely repaying the whole expense which must be laid out in order to obtain them. The stock of the farmer yields him a profit as well as that of the master manufacturer; and it yields a rent likewise to another person, which that of the master manufacturer does not. The expense, therefore, laid out in employing and maintaining artificers and manufacturers does no more than continue, if one may say so, the existence of its own value, and does not produce any new value. It is therefore altogether a barren and unproductive expense. The expense, on the contrary, laid out in employing farmers and country laborers, over and above continuing the existence

place the stock which employs them,—or which furnishes materials, tools, and wages,—and yield the ordinary profit upon that stock. It yields nothing equivalent to the rent of land. Neither does it add anything to the total value of the whole annual produce of the land and labor of the country. The additional value given to those parts of the produce of land which are wrought into manufactures is counterbalanced by the value of those other parts of that produce which are consumed by the manufactures. It can therefore only be by saving, or parsimony, not by the positive productiveness of their labor, that the classes of artificers can in any degree augment the revenue of the society. (p. 5.)

of its own value, produces a new value, the rent of the landlord. It is therefore a productive expense.

The labor of artificers and manufacturers never adds anything to the value of the whole annual amount of the rude produce of the land. It adds, indeed, greatly to the value of some particular parts of it. But the consumption which in the mean time it occasions of other parts is precisely equal to the value which it adds to those parts, so that the value of the whole amount is not, at any one moment of time, in the least augmented by it. (li. 250, 251.)

Artificers, manufacturers, and merchants can augment the revenue and wealth of their society by parsimony only, or, as it is expressed in this system, by privation; that is, by depriving themselves of a part of the funds destined for their own subsistence. (li. 252.)

7.

I. This class, it is acknowledged, reproduces annually the value of its own annual consumption, and continues, at least, the existence of the stock or capital which maintains and employs it. But, upon this account alone, the denomination of barren or unproductive should seem to be very improperly applied to it. (li. 259.)

III. It seems, upon every supposition, improper to say that the labor of artificers, manufacturers, and merchants, does not increase the real revenue of the society. Though we should suppose, for example, as it seems to be supposed in this system, that the

7.

[Hamilton's criticism of the Physiocratic doctrine is condensed from Smith, Book IV. chap. ix., and enclosed in quotation-marks. He begins, "To this it has been answered":—]

1. That inasmuch as it is acknowledged that manufacturing labor reproduces a value equal to that which is expended or consumed in carrying it on, and continues in existence the original stock or capital employed, it ought, on that account alone, to escape being considered as wholly unproductive. That, though it should be admitted, as alleged, that the consumption of the produce of the soil by the classes of

value of the daily, monthly, and yearly consumption of this class was exactly equal to that of its daily, monthly, and yearly production, yet it would not from thence follow that its labor added nothing to the real revenue, to the real value of the annual produce of the land and labor of the society.

[Then Adam Smith introduces a numerical illustration, the points of which Hamilton states in a general form. Smith then proceeds:]

Though the value of what the artificer produces, therefore, should not at any moment of time be supposed greater than the value he consumes, yet at every moment of time the actually existing value of goods in the market is, in consequence of what he produces, greater than it otherwise would be. (ii. 260, 261.)

IV. Farmers and country laborers can no more augment, without parsimony, the real revenue, the annual produce of the land and labor of their society, than artificers, manufacturers, and merchants. (ii. 261.)

The annual produce of the land and labor of any society can be augmented only in two ways: either, first, by some improvement in the productive powers of the useful labor actually maintained within it; or, secondly, by some increase in the quantity of that labor.

The improvement in the productive powers of useful labor depends, first, upon the improvement in the ability of the workman; and, secondly, upon that of the machinery with which he works. But the labor of artificers and manufacturers, as it is capable

artificers or manufacturers is exactly equal to the value added by their labor to the materials upon which it is exerted, yet it would not thence follow that it added nothing to the revenue of the society or to the aggregate value of the annual produce of its land and labor. If the consumption, for any given period, amounted to a given sum, and the increased value of the produce manufactured in the same period to a like sum, the total amount of the consumption and production during that period would be equal to the two sums, and, consequently, double the value of the agricultural produce consumed. And though the increment of value produced by the classes of artificers should at no time exceed the value of the produce of the land consumed by them, yet there would be at every moment, in consequence of their labor, a greater value of goods in the market than would exist independent of it.

2. That the position that artificers can augment the revenue of a society only by parsimony is true in no other sense than in one which is equally applicable to husbandmen or cultivators.

3. That the annual produce of the land and labor of a country can only be increased in two ways, — by some improvement in the productive powers of the useful labor which actually exists within it or by some increase in the quantity of such labor. That with regard to the first, the labor of artificers being capable of greater subdivision and simplicity of operation than that of cultivators, it is susceptible, in a proportionately

of being more subdivided, and the labor of each workman reduced to a greater simplicity of operation than that of farmers and country laborers, so it is likewise capable of both these sorts of improvement in a much higher degree. In this respect, therefore, the class of cultivators can have no advantage over that of artificers and manufacturers.

The increase in the quantity of useful labor actually employed within any society must depend altogether upon the increase of the capital which employs it; and the increase of that capital again must be exactly equal to the amount of the savings from the revenue, either of the particular persons who manage and direct the employment of that capital or of some other persons who lend it to them. (ii. 261, 262.)

8.

So the labor of farmers and country laborers is certainly more productive than that of merchants, artificers, and manufacturers. The superior produce of the one class, however, does not render the other class barren or unproductive. (ii. 259.)

greater degree, of improvement in its productive powers, whether to be derived from an accession of skill or from the application of ingenious machinery, in which particular, therefore, the labor employed in the culture of land can pretend to no advantage over that engaged in manufactures. That, with regard to an augmentation of the quantity of useful labor, this, excluding adventitious circumstances, must depend essentially upon an increase of capital, which, again, must depend upon the savings made out of the revenues of those who furnish or manage that which is at any time employed, whether in agriculture, or in manufactures, or in any other way. (pp. 5-7.)

8.

[Hamilton next subjects Adam Smith's admission of the superior productiveness of agriculture to a criticism which detects a fallacy often since commented upon. Cf., in general, Smith's chapter on the different employment of capitals (Book II. chap. v.).]

But, while the exclusive productiveness of agricultural labor has been thus denied and refuted, the superiority of its productiveness has been conceded without hesitation. As this concession involves a point of considerable magnitude in relation to maxims of public administration, the grounds on which it rests are worthy of a distinct and particular examination. (p. 7.)

9.

No equal capital puts into motion a greater quantity of productive labor than that of the farmer. Not only his laboring servants, but his laboring cattle, are productive laborers. In agriculture, too, nature labors along with man; and, though her labor costs no expense, its produce has its value as well as that of the most expensive workmen. (Book II. chap. v., i. 367.)

It [Rent] is the work of nature which remains after deducting or compensating everything which can be regarded as the work of man. It is seldom less than a fourth, and frequently more than a third, of the whole produce. No equal quantity of productive labor employed in manufactures can ever occasion so great a reproduction. In them nature does nothing, man does all; and the reproduction must always be in proportion to the strength of the agents that occasion it. (i. 368.)

10.

The profits of manufacturing stock, therefore, are not, like the rent of land, a net produce which remains after completely repaying the whole expense which must be laid out in order to obtain them. The stock of a farmer yields him a profit as well as that of a master manufacturer; and it yields a rent likewise to another person, which that of the master manufacturer does not. (Book IV. chap. ix., ii. 251.)

9.

One of the arguments made use of in support of the idea may be pronounced both quaint and superficial. It amounts to this: that in the productions of the soil nature co-operates with man, and that the effect of their joint labor must be greater than that of the labor of man alone. (p. 7.)

10.

Another, and that which seems to be the principal argument offered for the superior productiveness of agricultural labor, turns upon the allegation that labor employed on manufactures yields nothing equivalent to the rent of land, or to that neat surplus, as it is called, which accrues to the proprietor of the soil. (p. 8.)

11.

Upon equal or nearly equal profits, most men will choose to employ their capitals rather in the improvement and cultivation of land than either manufactures or in foreign trade. The man who employs his capital in land has it more under view and command, and his fortune is less liable to accidents, than that of the trader. . . . The capital of the landlord, on the contrary, which is fixed in the improvement of the land, seems as well secured as the nature of human affairs can admit of. (Book III. chap. i., l. 383.)

11.

[Hamilton, like Adam Smith, failed in the analysis of rent. Smith, in general, as in the passage just above, takes the Physiocratic view of rent as the net product which is secured in agriculture alone. Hamilton analyzes land rent as the landlord's share of the profits derived from his contribution to the stock of the farmer; namely, the land. This analysis may have been suggested by Adam Smith. Hamilton's thought is confused; but the passage below, together with that of Smith opposite, gives us the germ, perhaps, of Carey's theory of Rent, which Bastiat accepted and popularized.]

It seems to have been overlooked that the land is itself a stock or capital, advanced or lent by its owner to the occupier or tenant, and that the rent he receives is only the ordinary profit of a certain stock in land, not managed by the proprietor himself, but by another to whom he lends or lets it, and who, on his part, advances a second capital to stock and improve the land, upon which he also receives the usual profit. The rent of the landlord and the profit of the farmer are, therefore, nothing more than the ordinary profits of two capitals belonging to two different persons, and united in the cultivation of a farm. (p. 9.)

12.

CHAPTER I. *Of the Division of Labor.*—The greatest improvement in the productive powers of labor, and the greater skill, dexterity,

12.

[Hamilton's analysis of the economic advantages of the division of labor follows Adam Smith closely, but with no indication of

and judgment with which it is anywhere directed or applied, seem to have been the effects of the division of labor. (Book I. chap. I., i. 5.)

This great increase of the quantity of work, which, in consequence of the division of labor the same number of people are capable of performing, is owing to three different circumstances: (I.) To the increase of dexterity in every particular workman; (II.) To the saving of the time which is commonly lost in passing from one species of work to another; (III.) To the invention of a great number of machines which facilitate and abridge labor, and enable one man to do the work of many. (I. 9.)

I. The improvement of the dexterity of the workman necessarily increases the quantity of the work he can perform; and the division of labor, by reducing every man's business to some one simple operation, and by making this operation the sole employment of his life, necessarily increases very much the dexterity of the workman. (I. 9.)

II. The advantage which is gained by saving the time commonly lost in passing from one sort of work to another is much greater than we should, at first view, be apt to imagine it. It is impossible to pass very quickly from one kind of work to another that is carried on in a different place and with quite different tools. (I. 10.)

[Smith then gives illustrations, while Hamilton gives a more generalized and abstract statement, suggested by Smith's illustrations.]

III. Everybody must be sensi-

indebtedness beyond the opening phrase. Extracts only are cited.]

1. *As to the division of labor.*

It has justly been observed that there is scarcely anything of greater moment in the economy of a nation than the proper division of labor. The separation of occupations causes each to be carried to a much greater perfection than it could possibly acquire if they were blended. This arises principally from three circumstances.

1st. The greater skill and dexterity naturally resulting from a constant and undivided application to a single object. It is evident that these properties must increase in proportion to the separation and simplification of objects, and the steadiness of the attention devoted to each, and must be less in proportion to the complication of objects and the number among which the attention is distracted.

2d. The economy of time, by avoiding the loss of it, incident to a frequent transition from one operation to another of a different nature. This depends on various circumstances,—the transition itself, the orderly disposition of the implements, machines, and materials employed in the operation to be relinquished, the preparatory steps to the commencement of a new one, the interruption of the impulse which the mind of the workman acquires from being engaged in a particular operation, the distractions, hesitations, and reluctances which attend the passages from one kind of business to another.

3d. An extension of the use of

ble how much labor is facilitated and abridged by the application of proper machinery. It is unnecessary to give any example. I shall only observe, therefore, that the invention of all those machines by which labor is so much facilitated and abridged seems to have been originally owing to the division of labor. Men are much more likely to discover easier and readier methods of attaining any object when the whole attention of their minds is directed towards that single object than when it is dissipated among a great variety of things. (l. 10, 11.)

Many improvements have been made by the ingenuity of the makers of the machines, when to make them became the business of a peculiar trade. (l. 11.)

13.

A particular country . . . may frequently not have capital sufficient both to improve and cultivate all its lands, to manufacture and prepare their whole rude produce for immediate use and consumption, and to transport the surplus part either of the rude or manufactured produce to those distant markets where it can be exchanged for something for which there is a demand at home. (Book II. chap. v., l. 370.)

It has been the principal cause of the rapid progress of our American colonies towards wealth and greatness that almost their whole capitals have hitherto been employed in agriculture. They have no manufactures, those household and coarser manufactures excepted which necessarily accompany the

machinery. A man occupied on a single object will have it more in his power, and will be more naturally led to exert his imagination in devising methods to facilitate and abridge labor, than if he were perplexed by a variety of independent and dissimilar operations. Besides this, the fabrication of machines in numerous instances becoming itself a distinct trade, the artist who follows it has all the advantages which have been enumerated for improvement in his particular art, and in both ways the invention and application of machinery are extended. (pp. 16, 17.)

13.

The objections to the pursuit of manufactures in the United States, which next present themselves to discussion, represent an impracticability of success arising from three causes,—scarcity of hands, dearness of labor, want of capital. (p. 32.)

progress of agriculture, and which are the work of the women and children in every private family. The greater part, both of the exportation and coasting trade of America, is carried on by the capital of merchants who reside in Great Britain. Even the stores and warehouses from which goods are retailed in some provinces, particularly in Virginia and Maryland, belong, many of them, to merchants who reside in the mother country. (i. 371.)

14.

If the society has not acquired sufficient capital both to cultivate all its lands and to manufacture in the completest manner the whole of its rude produce, there is even a considerable advantage that that rude produce should be exported by a foreign capital, in order that the whole stock of the society may be employed in more useful purposes. (Book III. chap. i., i. 385.)

15.

But this great profit cannot be made without employing the labor of other people in clearing and cultivating the land; and the disproportion between the great extent of the land and the small number of the people, which commonly takes place in new colonies, makes it difficult for him to get this labor. He does not, therefore, dispute about wages, but is willing to employ labor at any price. The high wages of labor encourage population. The cheapness and plenty of good land encourage improvement, and enable

14.

It may be affirmed, therefore, in respect to hands for carrying on manufactures, that we shall, in a great measure, trade upon a foreign stock, reserving our own for the cultivation of our lands and the manning of our ships, as far as character and circumstances shall incline. (p. 34.)

15.

So far as the dearness of labor may be a consequence of the greatness of profits in any branch of business, it is no obstacle to its success. The undertaker can afford to pay the price. (p. 35.)

the proprietor to pay those high wages. In those wages consists almost the whole price of the land; and, though they are high considered as the wages of labor, they are low considered as the price of what is so very valuable. What encourages the progress of population and improvement encourages that of real wealth and greatness. (Book IV. chap. vii., Part II., ii. 145.)

16.

It is not by augmenting the capital of the country, but by rendering a greater part of that capital active and productive than would otherwise be so, that the most judicious operations of banking can increase the industry of the country. (Book II. chap. ii., i. 321.)

17.

The public funds of the different indebted nations of Europe, particularly those of England, have by one author been represented as the accumulation of a great capital superadded to the other capital of the country, by means of which its trade is extended, its manufactures multiplied, and its lands cultivated and improved much beyond what they could have been by means of that other capital only. He does not consider that the capital which the first credi-

16.

The following considerations are of a nature to remove all inquietude on the score of want of capital.

The introduction of banks, as has been shown on another occasion, has a powerful tendency to extend the active capital of a country. (p. 38.)

[The above refers to his report on a national bank presented the year before, in December, 1790.]

First. The augmentation of the active or productive capital of a country. [See Hamilton's *Works*, J. C. Hamilton's edition, iii. 108.]

17.

[That Hamilton had read Adam Smith on banking is clear. That, after doing so, while using Smith's words, he should have fallen into the very fallacies Smith exposes, is surprising. His knowledge of A. Smith's arguments, and his failure to be convinced, is evident in the discussion of public funds as capital.]

This operation of public funds as capital is too obvious to be denied; but it is objected to the idea of their operating as an aug-

tors of the public advanced to government was, from the moment in which they advanced it, a certain portion of the annual produce turned away from serving in the function of a capital to serve in that of a revenue, from maintaining productive laborers to maintain unproductive ones, and to be spent and wasted generally in the course of the year, without even the hope of any future reproduction, etc. (II. 524, 525.)

18.

Our woollen manufacturers, in order to justify their demand of such extraordinary restrictions and regulations, confidently asserted that English wool was of a peculiar quality, superior to that of any other country; that the wool of other countries could not, without some mixture of it, be wrought up into any tolerable manufacture; that fine cloth could not be made without it; that England, therefore, if the exportation of it could be totally prevented, could monopolize to herself almost the whole woollen trade of the world. (II. 234, 235.)

To depress the price of this commodity below what may be called its natural and proper price was the avowed purpose of those fiscal regulations; and there seems to be no doubt of their having produced the effect that was expected from them. (Book IV. chap. viii., II. 235.)

mentation of the capital of the community that they serve to occasion the destruction of some other capital to an equal amount. (pp. 41, 42.)

[Hamilton, pp. 42, ff., devotes several pages to a vain attempt to confute Smith, and to establish the point that a national debt operates as an increase of the national capital.]

18.

3. *Prohibitions of the exportation of the materials of manufactures.*

[This article, obviously, is based to a considerable degree on Smith's treatment of the prohibition in England of the export of wool, but is condensed and generalized. One or two similarities are noted.]

The desire of securing a cheap and plentiful supply for the national workmen, and, where the article is either peculiar to the country or of peculiar quality there, the jealousy of enabling foreign workmen to rival those of the nation with its own materials, are the leading motives to this species of regulation. . . .

It is seen at once that its immediate operation is to abridge the demand and keep down the price of the produce of some other branch of industry, generally speaking of agriculture, to the prejudice of those who carry it on. (p. 63.)

[Hamilton's remarks on premiums (p. 69) cover the same general points as Smith's, but there is less similarity of language (II. 98).]

19.

The quotation is from the *Wealth of Nations* (Book I. chap. xl., l. 156).

19.

[Hamilton's only verbally exact quotation from the *Wealth of Nations* is the following on transportation:—]

The following remarks are sufficiently judicious and pertinent to deserve a literal quotation: "Good roads, canals, and navigable rivers, by diminishing the expense of carriage, put the remote parts of a country [and so on, the citation ending with the sentence:] Their rents, however, have risen, and their cultivation has been improved since that time. (pp. 75, 76.)

20.

A tax upon the rent of land which varies with every variation of the rent, or which rises and falls according to the improvement or neglect of cultivation, is recommended, by that sect of men of letters in France who call themselves the economists, as the most equitable of all taxes. All taxes, they pretend, fall ultimately upon the rent of land, and ought, therefore, to be imposed equally upon the fund which must finally pay them. That all taxes ought to fall as equally as possible upon the fund which must finally pay them is certainly true. But, without entering into the disagreeable discussion of the metaphysical arguments by which they support their very ingenious theory, it will sufficiently appear, from the following review, what are the taxes which fall finally upon the rent of the land and what are those which fall finally upon some other fund. (Book V. chap. ii., ll. 420.)

20.

[One other citation may be given to show that, in 1782, Hamilton had probably already studied the *Wealth of Nations*, or some other criticism of the Physiocratic theory of the *impôt unique*.]

Indeed, many theorists in political economy have held that all taxes, wherever they originate, fall upon land, and have therefore been of opinion that it would be best to draw the whole revenue of the State immediately from that source, to avoid the expense of a more diversified collection, and the accumulations which will be heaped in their several stages upon the primitive sums advanced in those stages which are imposed on our trade. But, though it has been demonstrated that this theory has been carried to an extreme impracticable in fact, etc. ("The Constitutionalist," *Works*, II. 196.)

EDWARD G. BOURNE.

THE ANGLO-SAXON "TOWNSHIP."

IN recent historical writing dealing with Anglo-Saxon conditions, a great place has been occupied by the "township." The example was set sixty years ago by Palgrave;* but it does not seem to have been generally followed † until in 1874 Dr. Stubbs gave the word a prominent place in his *Constitutional History*. With Dr. Stubbs the "township" was "the unit of the constitutional machinery or local administration"; ‡ and since then most writers on constitutional and legal history have followed in the same direction. The most detailed description of the township was given by Mr. Green,§ who pictured for us its "entrenchments," "the homes within its bounds," and "the dwellers in" it. Professor Cunningham has spoken of "the lands they [*sc.*, the English invaders] had conquered" being "apportioned among the warriors in townships." || Mr. Dowell has given the word the sanction of the historian of taxation. ¶ And, finally, Sir Frederick Pollock, after pointing out how unauthorized is the use of "mark," has observed that "our proper English word [for "the English village community"], and the only one for which there is ancient authority, is 'township,' afterwards latinized as 'vill.'" ** From England the use of the term has passed to the United States; and it has been popularized especially by that group among the younger historians who have received their training at the Johns Hopkins University. Thus Pro-

* "Anglo-Saxon state composed of townships." *English Commonwealth*, i. 65, marginal abstract.

† "Township" plays no part in the theories of Lappenberg, Kemble, Hallam (*Supplementary Notes*, 1848), and Freeman (*Norman Conquest*, 1867), and is barely mentioned by Pearson (*History of England*, 1867). The only writer, so far as I know, who attached much weight to Palgrave's phrases before 1874 was Sir. Edward Creasy. "We may safely follow him," wrote Creasy in 1853, "in taking, the Anglo-Saxon townships as the integral molecules out of which the Anglo-Saxon State was formed." *Rise and Progress of English Constitution* (ed. 1886). p. 45.

‡ *Constitutional History*, i. 88 (§ 39).

§ *Making of England*, 180-194.

|| *Eng. Ind.*, i. 60.

¶ *History of Taxation*, i. 5.

** *Oxford Lectures*, 124.

fessor Howard, in his learned and useful work on the *Local Institutional History of the United States*,* begins by stating as an accepted fact that "in the early records of English history the *tunscepe*, or township, appears as the lowest form of self-government and the primary division of the state."

The language commonly used in this connection need not, perhaps, necessarily be understood as meaning that the phenomenon which the writers have in mind was actually known to the Saxons themselves as a "township" (*tunscepe*). It may be said that "township" is merely a modern name which it is convenient to apply to it. Yet, certainly, that language usually suggests that it was under that name that the Saxons knew it; and that was evidently the belief of Dr. Stubbs, when he spoke of King Alfred as having "no difficulty in recognizing in the *vicus* of Bede the *tunscepe* of his own land."†

It is therefore of some interest, at least for historical terminology,—and possibly for other and more important reasons,—to point out that there is no good foundation in Anglo-Saxon sources for such a use of the term; that *tunscepe* in the few places where it does appear does not mean an area of land, an extent of territory, or even the material houses and crofts of a village; that it is probably nothing more than a loose general term for "the villagers." Some feeling that this is the case has probably occurred to many who have looked into the matter, but I do not know that it has ever been pointed out in print.

Only three passages in Anglo-Saxon literature have as yet been found in which the word *tunscepe* appears,—the Saxon translation of Bede's *Ecclesiastical History*, v. 10, the laws of Edgar, iv. 8, and the *Saxon Chronicle*, s. a 1137. Of these the first is by far the most important, since it is supposed to establish the equivalence of *tunscepe* and *vicus*.

In his account of the murder of certain English missionaries among the Old Saxons—i.e., the Saxons of the continent—Bede had paused to remark that "the Old Saxons have not a king, but a great number of satraps set over their nation." He then tells of the murder; and Dr. Stubbs thus comments

* Vol. i. p. 18.

† *Constitutional History*, i. 45 (§ 32).

upon the sequel: "In connection with the same story the venerable historian describes one of these satraps as acting with summary jurisdiction on the inhabitants of a *vicus* which was under the mediate government of a *villicus*. King Alfred, when he translated Bede, had no difficulty in recognizing in the satrap the *ealdorman*, in the villicus the *tungerefa*, in the vicus the *tunscipe* of his own land."

Before looking more closely at the passage, two remarks are in place. The first is of trifling consequence. It is that the only scholarly editor* this old version of Bede has yet found is of opinion that its language is so evidently Anglian that it cannot possibly be attributed to Alfred, and assigns the earliest manuscript of it to the latter half of the tenth century.

The other consideration is more vital. In no other passage of this old English version is there any possibility of asserting that *vicus* is translated *tunscipe*. *Vicus* and *villa* are everywhere else, at any rate, represented by *tun*. The following is, I believe, a pretty complete list of the passages in Bede where *vicus* and *villa* appear:—

iii. 16, vicullis	= tunas.
iii. 17, villā regī	= cynelecan tune.
iii. 17, villis regis	= cyninges tune.
iii. 17, vicus	= tun.
iii. 17, vicum	= tun.
iii. 21, vico regis	= tune cyninges.
iii. 22, villa regia	= cynelecan tune.
iii. 22, vico regio	= cynelican tune.
v. 4, villa comitis	= gesithes tun.
v. 12, villulæ	= tunes.

And now, on looking at v. 10, it will be seen that there also the anonymous translator puts *tun* for *vicus*. Bede tells us that, when the *satrapa* (ealdorman) of the Old Saxons heard of the murder, he was wroth, and "*mittens occidit vicanos illos omnes, vicumque incendio consumpsit*," which the translator renders "*heht thone tunscipe ealne ofslean, and thone tun forbernān*." Thus *tunscipe* here is not a place, or an area, or a district, but a group of persons,—*the villagers, the people of the village*.

*Dr. Miller, in Introduction to the *Old English Version of Bede's Ecclesiastical History*. Early English Text Society, 1890.

Before turning to the passage from Edgar's laws, let us look at the *Chronicle*, where again the meaning is unmistakable. Speaking of the misdeeds of the barons in the reign of Stephen, the chronicler says, "They laid 'gilds' on the towns (*tunes*), and called it 'tenserie'; and, when the miserable men had no more to give, then plundered they and burned all the towns; and well mightest thou fare a whole day's journey nor ever shouldst thou find a man settled in a town [*in tune sit-tende*], nor land tilled. . . . If two or three men came riding to a town [*an tun*], all the *tunscipe* fled before them, and weened that they were robbers."* Here, again, the *tunscipe* are the people of the *tun*.

The law of Edgar (iv. 8) ordains that, "if a man, being out on any journey, unintentionally make a bargain without having declared it when he rode out," he shall "declare it when he comes home"; "and, if it be live stock, let him, with witness of *his township* [*mid his tunscipes gewitnyse*], bring it to the common pasture."† Now, it may, of course, be maintained that this implies the formal action of the officials of a district organized for administrative purposes. But it is surely much more likely to have the more commonplace meaning that the man who unexpectedly brings a strange beast into the village, which he says he has bought, is not to hurry it off to the pastures without telling any one about it, but is to publish his story abroad, and put the beast on the pasture under the eyes and with the knowledge of the *other inhabitants of the village*. For let us look at the context. The previous clause says "he who rides in quest of any cattle [*i.e.*, to buy], let him *declare* (beforehand) *to his neighbors* about what he rides." And in this clause itself the law goes on to order that, if the bringer of the strange cattle do not call in the "witness" within five days, "the town's men" are to declare it to the "ealdor" of the hundred; "and let them be exempt from 'wite,' both themselves and their herdsmen, and let him forfeit the cattle who brought it thither, *because he would not declare it to his neighbors* [*his neah-geburum*]."‡ And, when we add to the

* Earle, *Two of the Saxon Chronicles parallel*, 262.

† Thorpe's translation in *Ancient Laws and Institutes* (fol. ed.), 116.

‡ It may be noticed that this law of Edgar seems to assume that every *tun* is subordinate in some sort of way to a "*landrica*"; for it orders that half the forfeited cattle are to go to the *landrica*, half to the hundred.

argument from the context, that fairly deducible from the proved meaning of the word in the two other places, it is difficult to see how there can any longer be much doubt. Schmid, with only this passage before him, had apparently no hesitation in defining *tunscipe* as "die *Bewohnerschaft* eines tun." * The formation of the word may be roughly paralleled with that of *geferscipe*, a body of companions on a journey, or *gebeorscipe* (= beer-ship), a drinking party (convivium), in the story of Caedmon.†

The later history of the word "township" would probably repay investigation. It is certainly not a common word in literature until comparatively recent times; and, where it does appear, its old meaning seems often to cling to it. At least, such a meaning is just as fairly assignable to it as the more formal and institutional one. This is the case in the one passage in which it occurs in Shakspeare: ‡—

Suffolk. . . . What's here? [*Reads.*] "Against the Duke of Suffolk for enclosing the commons of Melford." How now, sir knave?

Second Petitioner. Alas, sir, I am but a poor petitioner of our whole township.§

So also with the certificate of the sale of church plate (1547) in the parish of Beccles. "Beccles . . . sold anno primo Edward sexti Regis, etc., by the *townshype* and *Churchewardens* so much plate as amounteth to the sum of xil." ¶

Yet as early as 1414 the word had begun to be used for a certain local area. ¶ In a petition of that year—the first Eng-

* *Gesetze der Angelsachsen*, Glossar, s.v.

† *Old English Version of Bede's Ecclesiastical History*, iv. 24.

‡ *Second Part of King Henry VI.*, Act I., Scene 3.

§ Here Schmidt, *Shakspeare Lexicon*,—looking at the passage, we may suppose, without constitutional prepossessions,—defines "*Township*: The body of the inhabitants of a town."

¶ *East Anglian*, May, 1885, quoted by W. F. Allen, *Monographs and Essays*, 269.

¶ It is very probable it was used a good deal earlier. *Tunscipemot* occurs in certain charters of Richard I. and John; but, as Professor Maitland observes (*Law Quarterly Review*, ix. 226), its occurrence here "in close connection with the 'hustings' and the 'portmanemot' suggests that it was chiefly within the cities and boroughs that a township-moot was to be found." It is significant that in *Stratmann's Dictionary of the Old English Language* (3d ed., 1878), "compiled from writings of the twelfth, thirteenth, fourteenth, and fifteenth centuries,"

lish petition on the *Rolls of Parliament*—we find “the manor and township of Chestreton.”* And in the sixteenth century the word was quite commonly used by the translators of the statutes as the equivalent for “ville.”

Nevertheless, there is a good deal to make one believe that *town* continued to be the common popular term for what we may describe in general language as a rural centre of population even into the eighteenth century. Chaucer’s model priest from the country was “a poure persone of a toun.”† The enclosure act of 1488–89 speaks of the “pulling-down of townes,” and of “townes” where “two hundred persons were occupied, and now be there occupied ii or iii herdemen.”‡ The sixteenth-century translation of the Ordinance of Laborers of 1349, as well as that of the Statute of Laborers of 1360–61, uses *town* for *villa* and *ville*.§ Lever, preaching in 1550, describes how, before the Reformation, “there were in some townes 6, some 8, and some 12 kyne, given unto a slock for the relief of the poor.”|| In a *Certificate of Church Goods* in Suffolk, in the *Customary* of Tettenhall Regis (1604), and in Colonel Hutchinson’s *Memoirs* “town” is used for “manor”¶; while the same *Certificates* of church goods of 1547 give abundant examples of its use for “parish.”** Coke translates Littleton’s statement, “chescun burgh est un ville, mes nemy è converso,” “every borough is a town, but not è converso”; and goes on to comment: “It cannot be a town in law unless it hath, or in times past hath had, a church and celebration of divine service, sacraments and burials. . . . There be in England and Wales eight thousand eight hundred and three towns

though there are some fifteen references for *tun* in various senses, there is but one for *tunacipe*; and that is the passage in the *Anglo-Saxon Chronicle* already discussed.

* *Rot. Parl.*, iv. 57. I owe this reference to Mr. Oliphant’s *New English*. Mr. Oliphant speaks of “township” as a “new word.”

† *Canterbury Tales*, Prologue, l. 480. He had a “wide parish,” and his brother was a “plowman.”

‡ 4 *Hen. VII.*, c. 19; *St. of R.*, II. 542.

§ *St. of R.*, I. 307, 367.

|| Lever’s *Sermon before the King*, Arber’s Reprint, 82.

¶ Quoted in Allen’s *Monographs*, 273, 275.

** *Ibid.*, 268, 269. For other examples of the equivalence of *town* and *parish*, circa A.D. 1600, see Professor Channing’s convincing essay on *Town and County Government in the English Colonies* (1884), 9–11.

or thereabouts."* The Act of 13 & 14 Charles II., c. 6, groups together "parish, town, village, or hamlet";† and Mr. Toulmin Smith gives long extracts from the records of the parish of Ardley in Hertford for the period 1707-1881, found in a volume marked "The Towne Book."‡ Even to-day there are parts of England where "town" (in Yorkshire pronounced *toon*) is still the rustic term for village.§

That in particular cases "town" (*villa*), "manor," and "parish" often did not coincide is very apparent. There were many instances of parishes including more than one town; but the above instances make it clear that in common usage, over a large part of the country, the three terms were equivalents. Thus Coke declares, "By the name of a town, *villa*, a manor may pass," and, in another place, "If a matter be alleged in *parochia*, it shall be intended in law that it containeth no more towns than one, unless the party doth shew the contrary."||

It may be added that the far more general use of the word *town* than of *township* in early New England is most naturally explained by supposing that it was the word ordinarily employed in England at the time of the migration,—at any rate, in East Anglia. And it is worth while to recall the common use of *town* for the village on a landlord's estate in Ireland,¶ and its appearance in the same sense in Southern Scotland.**

* Co. Lit. [115 b], sect. 171.

† Cited by Toulmin Smith, *The Parish*, second edition, 108. ‡ *Ibid.*, 525.

§ See the *Provincial Dictionaries* of Halliwell and Wright, and, better still, Morris, *Yorkshire Folk Talk*, and Baker, *Northamptonshire Glossary*.

|| Co. Lit. [5 a], sect. 1; [125 b], sect. 193. For this latter reference I am indebted to the courtesy of Sir Frederick Pollock.

¶ A good instance is given in Miss Edgeworth's *Absentee*, where also the circumstance that the authoress thinks it necessary to add an explanation shows that she supposed the word would be strange to her polite readers: "He arrived at a village, or as it was called a town, which bore the name of Colambre . . . Lord Colambre . . . asked him to whom the town belonged, and who were the proprietors of the neighboring estates. 'The town belongs to an absentee lord, — one Lord Clonbrony'" (chap. ix.).

** E.g., the "auld town" of St. Ronan's. *St. Ronan's Well*, chap. II. See also the examples in Jamieson, *Dictionary of Scottish Language*, especially of "town-gate" for village street in the south.

If, then, it was *town* that the country folk themselves were wont to speak of, it is a little difficult to understand how *township* has obtained its literary prominence. It is probably the result, in the main, of the employment of *town*, from a period at least as early as the sixteenth century,* for an urban centre, — as an equivalent, in short, for *urbs*. This itself, of course, is not an ultimate fact, and needs explanation. But it is easy to see that, when this other use became common in cities and boroughs, writers who addressed themselves to an urban public would feel the need of a word not liable to misunderstanding, and would tend to adopt *township*. The country folk themselves would not feel the ambiguity, and would continue to speak of their *towns*. It may not be far-fetched to suggest that there is a further and even more literary explanation of the prominence given to the word *township* by recent writers. The late Professor Allen, of the University of Wisconsin, has commented † on the curious fact that, although “at present the word ‘township,’ is not in use in New England, except occasionally . . . and never as a body politic,‡ it is the word, *fashioned upon by De Tocqueville*, that is regularly used by foreign writers to describe the New England town system.” De Tocqueville was doubtless unconsciously influenced by the contemporary English literary use of *township*; but it does seem very probable that his employment of the word gave it a dignity, a sort of politico-philosophical propriety, in the eyes of his contemporaries which it had never enjoyed before, and which not a little influenced even the most scholarly historians. §

* It is commonly so, for instance, in Shakspeare.

† *Monographs*, 269.

‡ It is now currently said that “township” is only accurately used for the area or stretch of land, and that “town” is the only proper term for the body as a juristic person, or as a political or administrative organism. How far this agrees with seventeenth-century usage I am unable to say. Freeman’s *Town Officer* (for Massachusetts), which passed through several editions at the end of the eighteenth and beginning of the nineteenth century, seems to use “town” alone, and speaks not only of “the power and duty of towns,” but of “inhabitants of a town.”

§ *La Démocratie en Amérique*, chap. v. Mr. Bryce, *American Commonwealth*, chap. xlviii., returns to the more accurate term “town.” He gives a quotation from Jefferson, “Those wards called townships in New England,” which may help to explain whence De Tocqueville got the word.

To return to Anglo-Saxon times. It might very naturally be said that the effect of the foregoing argument is no more than to replace "township" by "town," and that such a change is immaterial,—that it is a difference between tweedledum and tweedle-dee. I cannot help thinking, however, that the adoption of a more correct terminology will be of scientific advantage; and for this reason. So long as we speak of the Anglo-Saxon "township" we can hardly help attaching to the word somewhat of the meaning which it has borne since the sixteenth century. We think of it as an area inhabited by freemen with an administrative machinery in the hands of an assembly of those inhabitants and of officers chosen by them. We start, therefore, with a sort of unconscious presumption that the "township" was what we call "free."* Townships under a lord we speak of as "dependent townships"; and we can hardly help thinking of them as exceptional or as later than the free ones. Now, it is this question as to the position of the body of the population in the earliest Anglo-Saxon times that is just now at issue; and no student would say that at present the question is settled. And, while that is so, it is surely better to use a terminology which is as far as possible from suggesting an answer which we are not yet in a position to prove,—to say simply that we know of the existence among the Saxons of *villae* and *vici* and *tuns*, and there for the present leave the matter.†

So far we have been dealing with a narrowly limited mat-

* Cf. Stubbs, *Constitutional History*, i. 89.

† It is not, however, unfair to add that the use of *tun* itself may be adduced as strengthening somewhat the argument for supposing that the later "towns" grew up around seigniorial or dominical households. *Town* is still used in Scotland for a single farmstead. In Devonshire and some other parts of England it is used for the court or farm yard. In Ireland *tun* denotes "the manured grass-plot, enclosed within a low green bank or raised dyke, which surrounds the farm-house." This is in perfect harmony with the accepted derivation of the word, which interprets it as an "enclosure," and connects it with the German *Zaun*, a hedge. But there seems no reason for supposing that whole villages were enclosed,—either the whole land of the village (as Nasse understands Kemble to mean, and, as he justly says, is inconsistent with the later history of enclosures) or merely the group of village homesteads (as Nasse conjectures, *Agricultural Community*, 15). If so, the application of the term to a village must be a secondary use, and may very well have come to it from the fact (if true) that it grew up around the *tun* of a lord. *Town*, in brief, suggests the same sort of *prima facie* argument as *villa*.

ter,—the use of the word “township,”—and engaged in the interpretation of certain definite citations; and this was the only object of this paper. But it can do no great harm to tack on to this some speculations as to the history of the “tun” itself, if it is distinctly stated that they are but tentative speculations, thrown out by way of experiment.

From the earliest time for which we have any information there were *villae* and *tuns* scattered over England. The appearance of the two terms is practically contemporaneous. *Tun* occurs first, in an authentic document, in a charter of A.D. 674, where Wulfhere of Mercia sells to a relative “*aliquam partem agri in hereditatem perpetuam, id est v. manentes, ubi ruriocoli nominantur Dilingtun, cum campis et silvis et omnibus utensilibus ad isto agro pertinente*”;* while *villa* confronts us again and again in Bede’s *Historia Ecclesiastica*. Now, Bede was born A.D. 672, and ceased writing his *Ecclesiastical History*, which he had probably begun some years before, in 731. The “king’s tun,” the “earl’s tun,” and “a man’s tun” do indeed occur in the laws of Ethelbert of Kent,† assignable to *circa* A.D. 600. It must, however, be remembered that the editors of the Anglo-Saxon laws are agreed that “it would be unreasonable to suppose that these laws have descended to us in their primitive state,”‡ though they probably contain the substance of some of Ethelbert’s enactments; so that it were unsafe to lay any great stress upon them.

It can hardly be disputed, also, that the words were equivalents, though we have no examples of translation before the tenth century.§ Accordingly, we should hesitate, I think, before speaking either of *tun* being “latinized” as *villa* or *villa* being “anglicized” as *tun*. To say that *tun* was latinized “afterwards” as *villa* is to suggest that the English institution was

* Earle’s *Land Charters*, 4.

† §§ 5, 13, 17.

‡ Thorpe, *Ancient Laws*, Preface, iv. Cf. Schmid, *Gesetze*, Einleitung, xxx: “Es ist schwer zu glauben dass derselbe uns die Sprache Æthelbirhts treu wiedergegeben habe.”

§ Besides the *Old English Version of Bede*, see the charter of A.D. 940, granting land at “Oswalding villam,” with its contemporary endorsement, “Oswalding tun,” in Kemble, *C. D.*, cccxxxv., and Earle, 175. Cf. the charter of 780, *C. D.*, cxi., where of four *villulas* the names of two end in *tun*.

really known only as *tun*, and that scholars consciously sought for a designation in a dead language, and chose *villa*,—perhaps unwisely. It would be truer, probably, to say that people who used English commonly called the thing *tun*, and people who used Latin called it *villa*.* To determine what proportion of the inhabitants spoke of it under one name and what under the other, we should have to answer the question, still hotly disputed, as to whether the Provincials survived under new masters. It must be allowed that *villa* does not survive in place-names to anything like the same extent as *tun* or *ham*, or as *ville* survives in Gaul. Such a phrase as "*ubi ruricoli nominantur Dilingtun*" in the charter of A.D. 674, or "*in vico regio qui dicitur Rendlaesham*,"† is good evidence that then and there a name of English origin was used. Yet in his *Life of the Abbots of Wearmouth* Bede tells us of "*terra viginti familiarum in loco qui incolarum lingua Ad Villam Sambuce vocatur*."‡ And Professor Earle has shown some reason for believing that *villa* has survived to a larger extent than we had imagined, and that "it is obscurely embedded in some of our place-names."§

But what were these *villae* and *tuns*? It is very possible that some, both of the *villae* and of the *tuns*, were still simply "country-houses" with enclosed farmsteads, but without any group of residents around them except the handful of persons who formed the family and household of the owner. It is quite conceivable that in some cases they were groups of free proprietors living together in villages. But it is far more probable that in most, if not all, cases they were private estates, having upon them villages of dependants of various de-

* We commonly think of these latter as only a few clergy. There is, however, a passage in Bede which would seem to imply that Latin was known to some extent by a good number of people. "*Haec [insula] in praesenti quinque gentium linguis unam . . . summae veritatis . . . scientiam scrutatur et confitetur, Anglorum videlicet, Brittorum, Scottorum, Pictorum et Latinorum, quae [sc. Latinorum lingua?] meditatione scripturarum ceteris omnibus est facta communis*" (lib. I. cap. 1).

† Bede, *Historia Ecclesiastica*, iii. 22.

‡ *Vita Abbatum Wirmuthensium*, in *Complete Works of Bede*, ed. Giles (1843), iv. 288.

§ "The Villa and the Manor," in the *Economic Journal*, ii. 744.

grees, from slaves up to free tenants. If we assume, as Gibbon did,* that the English conquerors would find it "their interest to preserve the peasants as well as the cattle of the unresisting country," no difficulty will remain: we shall conclude that the estates known as *villas* of the Roman time survived with much of their old organization and population, to become the nuclei round which would grow up the later manors. And we can draw this conclusion without necessarily imagining that every English warrior who did not become the lord of a *villa* became a serf. It is very possible that there was a considerable number of free English proprietors at first, who were gradually drawn into the vortex of manorial formation around the *villa* nuclei. But, if Gibbon's assumption seems too hazardous, there are other and independent reasons for the same view as to the Anglo-Saxon *villa* or *tun*. In the first place there can be little doubt that, at the time when Bede wrote, *villa* elsewhere in Western Europe commonly denoted an estate with dependants upon it.† The burden of proof is upon those who would assert that Bede used it in any other sense. In the second place, the earliest charters of land use as the units of measurement *cassati*, *manentes*, and *tributarii*, either actually transferring so many *cassati*, etc., or the land of so many *cassati*.‡ Now, these were quite common terms on the continent for prædial serfs and their holdings;§ and it would be very odd if the terms had been used here without similar classes having existed.|| Moreover, some of the earliest grants of such more or less servile holdings describe them as being "in [more

* *Decline and Fall*, chap. xxxviii.

† As far as I can make out, this does not seem to be denied even by M. Flach, who, in his *Origines de l'Ancienne France* (1893), has taken up the cudgels against M. Fustel de Coulanges, and has tried to make out that the Frankish *villas* were in some cases independent villages.

‡ *Cassati* and *manentes* occur on every page of Earle's *Land Charters*. For *tributarii* see charters of A.D. 693, C. D., xxxvi., 725, C. D., xi., and 780, C. D., cxi.

§ On *tributarii* see Waitz, *Deutsche Verfassungsgeschichte*, ii. 223, 224.

|| It is true that these terms do not appear outside the land charters; but then our evidence is very scanty. The forms of the charters may have been awkwardly copied from Italian precedents. Still, the conditions cannot have been altogether dissimilar, or it would hardly have been possible to estimate the size of an estate by the number of such tenures. Cf. Hallam, *Middle Ages* (ed. 1870), ii. 366.

rarely "ubi"] the place called (such and such a) *tun** or *ham*,† and go on to speak of the appurtenant enjoyment of fields, pastures, meadows, etc. That is, they imply that the *tun* or *ham* was some part of a larger unit, made up of a number of such servile holdings with their appurtenances, much in the same way as the later manor was made up of plough-lands or yard-lands. And, in the third place, it is a curious circumstance that, whenever Bede speaks of a village (*vicus*, in the old English version *tun*),—such as, if we had no farther information, we might suppose to be a village of free proprietors,—he either adds some such word as *regis* or *regius*, or speaks of it later as *villa*; and in the same way that, when *villa* alone is used, it is either qualified by *comitis* or *regis*, or is the subject of a grant.‡

The earlier *tun* or *ham* or *villa* was thus, in all probability, usually an estate containing upon it a group of dependants living together in what we may call a *village*. And the view of social evolution to which such a conclusion brings us is that "the village community" of later times, so far as it existed, was in large measure the result of the common bond or tie to the proprietor, the lord, or seigneur.§ The sense of community of interests, the habit of joint action created by seigneurial or, to use Professor Earle's term, dominical pressure, would survive, and even for a time grow stronger as the grasp of the lord was loosened. And so out of the dependent group would slowly grow the "town" and "township,"—the latter originally the "villagers" or "townsfolk" in a loose sense, then coming to be associated with the idea of corporate unity, like *villata*, and then naturally being extended to the area cultivated by the villagers. Out of it would arise much of the "parish" machinery of later times; and, in places favored

* E.g., charters of 674 (Earle, 4) and 714 (C. D., xlvii.).

† E.g., charters of 692 and 704, C. D., xxxv., lli.

‡ See the list given above. The only exception is the *vicus* among the Old Saxons; about which we are only told that it had a *villicus* who was in some unexplained way subordinate to a *satrapa*.

§ The necessary co-operation of the open-field system of husbandry had certainly much also to do with it; but that opens another field of inquiry, which we cannot enter here.

by circumstances, municipal self-government would also find there its beginning.

But we must not antedate the various stages in this process. When we come to look up the authorities that are given for the "functions" of the Anglo-Saxon "township," it is startling to find how they slip from between our fingers. No scholar is now inclined to build much upon the single appearance of *mearc-mot* in a document professing to be of A.D. 971, and regarded by Kemble himself as of doubtful authenticity.* But it is hardly realized that with the disappearance of *mearc-mot* disappears all the Saxon evidence for a township assembly of any sort. Important administrative functions have been assigned to the Anglo-Saxon township: "it carried into effect the requisitions of the higher courts in the way of taxes and other exactions, the pursuit of criminals, and the search for stolen goods";† and four passages are cited from the laws. One only of these is early. It is a clause of the laws of Hlothere and Eadric.‡ This happens to be one of the most obscure, and probably corrupt, passages in the laws,—a passage which Schmid gives up the attempt to translate; and all that can be made out of it is that, if a man is accused of stealing another, he is to swear to his innocence with the help of certain compurgators, "each in the *tun* to which he belongs." Possibly the ceremony took place before the altar of the village church,—a most natural thing to do, and implying very little function on the part of the townfolk except that of "occasional crowd." The next is that requirement of Edgar's already discussed, which requires the witness of the neighbors, when cattle have been acquired. The third is another clause of the same set of laws: § "I will that townsmen (*tunes-men*) and their herdsmen have the same enquiry concerning my live cattle and that of my thegns as they have concerning their own. But if my reeve, or any other man, more or less powerful, shun this, and command things unseemly, either to townsmen or their herdsmen, *let the Danes choose*, according to their laws, what punishment they will

* C.D., D Ixviii. See also Earle, *Land Charters*, xlv., and Pollock, *Oxford Lectures*.

† Stubbs, *Constitutional History*, i. 97.

‡ Sect. 5.

§ Iv. 12.

adopt respecting him."* This is certainly far from lucid. And the fourth passage comes from the laws of Ethelred,† assignable to so late a date as A.D. 997. This simply says that "he who robs a man in broad daylight, and he [*i.e.*, the robbed] declare it in three *tuns*, (he) shall not be entitled to any frith"; *i.e.*, apparently, the robbed person can take summary vengeance, or get it taken, on the criminal, if he first makes the business known in three neighboring villages. In all these laws there is scarcely any trace of formal administrative or police action on the part of the *tun* or (its supposed) officers. What most nearly approaches to it is the clause in Edgar's Ordinance of the Hundred, in the second half of the tenth century, requiring the assistance of the "tithing men" in the pursuit and punishment of thieves.‡ But the relation of the "tithing" to the "town" is a tangled mystery, upon which it were rash to enter here. It is with the "town" and "township" that we are now dealing; and one is very much inclined to agree in the sweeping statement that the Anglo-Saxon township (or tun) "had not a single constitutional function of any kind, sort, or description."§

One supposed function — and that, if real, an important one — still, however, remains to be considered. The township, it is said, "arranged the representation of its interests in the courts of the hundred and the shire where the *gerefa* and four best men appeared for the township."|| And, again, "in the *free* townships the reeve and the four best men were the legal representatives of the community in the court of the hundred and the shire."¶ The one authority cited is "the laws of

* Thorpe's translation, *Ancient Laws*, 117.

† III. 15.

‡ Edgar, I. 2.

§ *North American Review*, July, 1874 (vol. cxix. p. 239).

|| Stubbs, *Constitutional History*, I. 97.

¶ *Ibid.*, I. 102. Such a statement lends itself very easily to political philosophizing. Thus Mr. Gardiner, speaking of "the institutions of the [English] settlers" in Britain, compares them with those of the Roman Empire thus: "The organization of which he [every freeman] formed part did not, as in the empire, reach from the state to the individual, but from the individual to the state. Every township . . . made its appearance every month in the hundred mote to decide quarrels and witness contracts." Gardiner and Mullinger, *Introduction to the Study of English History*, 18. So, also, Mr. Fiecke contrasts the "Roman Idea and English Idea," or Non-representation and Representation, thus: "In the [Anglo-Saxon] county meeting we may observe a singular feature, something never seen before

Henry I." Now, these "laws" are an unauthorized compilation, assigned by Dr. Liebermann to the period between 1108 and 1118. It is possible — nay, probable — that "they contain very many vestiges of ancient English jurisprudence." But it would be eminently unsafe to select any clause as containing such a "vestige," unless the archaic nature of the ordinance were clearly proved by other evidence. And, after all, what precisely do these laws say? * In the paragraph dealing with the county courts it declares: —

§ 7. Si quis baronum regis vel aliorum comitatui secundum legem interfuerit, totam terram, quam illic in dominio suo habet, adquietare poterit. Eodem modo est si dapifer ejus legitime fuerit. Si uterque necessario desit, prepositus et sacerdos et quatuor de melioribus villae adsint pro omnibus qui nominatim non erunt ad placitum submoniti.

§ 8. Item in hundredo decrevimus observandum de locis et vicibus et judicium observantis, de causis singulorum justis examinationibus audiendis, de domini et dapiferi VEL sacerdotis et praepositi et meliorum hominum presentia.

Is it necessary to point out that what this anonymous writer of the beginning of the twelfth century says is that the priest and reeve and the rest are to attend only if the lord or his steward are obliged to be absent, and that he assumes that there is a lord as the normal condition of things? †

in the world, something destined to work out vaster political results than Caesar ever dreamt of. This county meeting is not a primary assembly: all the freemen from all the townships cannot leave their homes and their daily business to attend it. Nor is it merely an assembly of notables, attended by the most important men of the neighborhood. It is a representative assembly, attended by select men from each township. We may see in it the germ of the British parliament and of the American congress, as indeed of all modern legislative bodies." *The Beginnings of New England*, 28.

* *Leges Henrici Primi*, vii. 7, 8; Schmid, *Gesetze*, 440.

† Mr. Bigelow, *History of Procedure in England*, 134, argues as follows: "The statement that the reeve, priest, and four men represented the lower classes" (which is hardly the exact case), "when the baron and his steward were necessarily detained, probably does not mean that the attendance of such representative persons was dependent upon the absence of the baron and steward, but that, if the latter were excusably absent, then the lower classes, such as were represented by the baron and his steward, when present, were to be represented by the delegates attending with the parish priest. And, if this be true, it follows that this delegation (being regularly present) properly and always represented others than those represented by the barons." I must confess that this seems a mere juggle with words, occasioned by the assumption that this "regular presence" of the "delegation" is beyond question, forgetting that this particular passage is the

The only reason that remains for attributing to the Anglo-Saxon "township" — i.e., town — certain functions of the kind we have been looking for is the argument from supposed "survivals."* The courts of the manors, and the parish meetings of a later date, had certain features, which, if we start with an unconscious presupposition as to the original constitution of Anglo-Saxon society, may easily strike us as "archaic," as "vestiges" and "survivals." But this is one of the most dangerous of arguments. Every one of those customs and features may be just as well — in default of evidence to the contrary — regarded as the outcome of an evolution *away* from the original condition. What is vitally necessary and alone sufficient is early evidence as to the early condition itself.

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only evidence. The utmost that can be said is that here we may see the very beginnings of the idea of representation. But it should not be forgotten that the same compilation says of the county courts, "*Intersint episcopi . . . praepositi, barones, vavassores, tungrevil et ceteri terrarum domini*" (vil. 2); and "*Regis iudices sunt barones comitatus, qui liberas in eis terras habent . . . villani vero vel cotesii . . . non sunt inter legum iudices numerandi*" (xxix. 1).

* I have since observed that Dr. Stubbs makes somewhat the same concession in regard to representation in the county court (*Constitutional History*, i. 128). This point, he says, "left questionable in the laws, is *proved* by the later practice"; and he refers to the county courts of Henry III. But it is difficult to see how the practice of 1231 can *prove* anything as to 1066, unless we suppose social and political conditions to have remained unchanged. But this was far from being the case. In a foot-note Dr. Stubbs asks us to compare certain four passages from Domesday. Three of these have no suggestion of representation. The only one that has is the case of Archenfield (i. 179), where "*si vicecomes evocat eos ad sciremot, meliores ex eis, vi aut vii, vadunt cum eo.*" But Archenfield (later known as Irehenfield) was not a manor in the sense in which the word was used in England proper. It was a considerable tract on the Welsh border, containing several villages, where the king had "*o homines . . . qui habent LXXIII. car' cum suis hominibus.*" That six or seven of these vassals (homines) should attend the shiremoot indicates little as to the practice in the cases of manors of the English type. Cf. Camden's *Britannia* (ed. Gibson), i. 491.

NOTES AND MEMORANDA.

STILL another addition to the list of periodicals on political science comes in the *Revue du Droit Public et de la Science Politique*, of which the first number bears date January—February, 1894. The editor, Professor F. Larnaude, of Paris, gives notice in the opening article of a catholic program and of a wide range of subjects. In addition to set papers in the field indicated by the title of the *Revue*, this first number contains book reviews, and a careful *Chronique Politique*, which extends to France, England, Austria, and Spain. Economics and sociology are not beyond the scope of the *Revue* except in so far as they deal with phenomena "independent of the intervention of the State." Six numbers a year are promised, at a subscription price of 22.50 fr. for foreign countries. The publishers are Chevalier-Marescq et Cie., Paris.

HARDLY less imposing in bulk than the results of the Eleventh Census, and of no less value to economic students, will be the publications issued by the Royal Commission of Labor in England. The full list of these, published or to be published, has been given out, and may be secured from Messrs. Eyre & Spottiswoode, London. There will be eleven volumes of evidence taken before the Commission or its subdivisions, on mines, metal industries, textile industries, building, shipping, railways, and on co-operative societies and various movements. The reports on foreign countries will make ten volumes, those on agricultural laborers in the United Kingdom five volumes; the employment of women adds another volume. In addition there are careful and extended digests of the evidence, elaborate answers to schedules, and full indexes. By far the larger part of this great mass is ready,

and all of it will be available shortly. It will be long before economists will have ceased to get fresh material from this enormous accumulation.

It is announced that, in connection with the Universal Exposition to take place in Antwerp this summer, an international congress on customs legislation and on the regulation of labor will be held. Among the topics mentioned on the programme of the Congress are, under the first head, the critical consideration of statistics of international trade, "the foundations of a good customs legislation," the advantages of treaties of commerce, the expediency of differential duties, and the effects of protection on wages; and, under the second head, conciliation and arbitration, minimum wages and maximum hours in public works and contracts, the limitation of hours of labor in general, piece-work, international legislation on labor, and emigration. The proposed range of subjects is large; and their discussion is expected to cover a week, beginning July 15. The Congress will be open to members only, who must have paid to the treasurer a fee of twenty francs,—a rule which indicates that participation by those not seriously and intelligently interested is to be avoided as far as possible. The president of the committee of arrangements is M. Louis Strauss, of Antwerp. The treasurer is M. Ch. Good (Rue Otto Venius 15, Antwerp), to whom those desiring to become members are requested to remit the fee of twenty francs, not later than June 15.

THE Prussian Ministry of Public Works, to which students of railway history and legislation are already indebted for the material gathered in the *Archiv für Eisenbahnwesen*, announces a new venture in the *Zeitschrift für Kleinbahnen*, of which the first number appeared in January. The mere fact of such a publication indicates how important a part the development of smaller local roads is now expected to take in the railway policy of Prussia and Germany. It is to be expected that the new *Zeitschrift* will contain matter mainly

of interest to Germans; but the first number contains a paper on *Kleinbahnen* in the United States by Dr. Kollmann, and another from the well-known hand of Dr. von der Leyen, on recent legislation in France on local and street railways. There are to be twelve numbers a year, at the price of 10 marks. The publishing agent is Julius Springer, Berlin.

THE *Handwörterbuch der Staatswissenschaften*, in the last instalment which has reached us, comes nearly to the end of the letter V; and the closing issue is announced to be in press, and promised for delivery early this spring. Therewith this great enterprise, begun in 1890, will have been carried to completion within four years, showing once again how great is the industry and how wide the equipment of the German economists of the present generation. The last instalment maintains the high level of its predecessors, and is distinguished by Professor Schmoller's contribution on "Volkswirtschaft, Volkswirtschaftslehre- und Methode." It may be a question, in regard to this article and others on similar general topics, whether so positive a presentation best serves the purposes of those likely to consult a dictionary or cyclopædia. However able and inspiring, an article like Schmoller's presents rather the views of one set of thinkers than such a catholic statement of the history and scope of economic inquiry as presumably would be sought by those consulting a book of reference. But the gain in vigor and interest from an essay which tells what the individual writer has most at heart is undeniable; and, on the whole, few will quarrel with the work, either of editors or of contributors, in the *Handwörterbuch*.

THE Department of Labor has issued its fourth special report, prepared by Mr. John G. Brooks, on Compulsory Insurance in Germany. Mr. Brooks's book — for such it is — will at once become the accepted source of information for English-speaking students on this great social undertaking, giving, as it does, in convenient form, the text of the various legislative acts and a body of fresh and trustworthy informa-

tion as to their working. Most economic students, to whom the general outlines of the system will be sufficiently familiar, will turn at once to Mr. Brooks's closing chapters, in which he takes up the bearing of the insurance system on wages, playing sick to get sick pay, and the relation of the system to public charity. Some of the data here presented are not encouraging. Playing sick is a grave and unmistakable evil, and there is no appreciable evidence of a diminution of the resort to public charity. Mr. Brooks's conclusions are almost of necessity tentative and of uncertain ring, as he presents, on the one hand, the good secured and, on the other, the drawbacks not to be avoided. Yet the reader of this careful report, as he follows the details of the intricate administration of the system, the boldness with which the defects of the existing acts are faced, the plans for their amendment and better execution, must feel a renewed sense of admiration for the courage and ability with which the German bureaucracy, and now the German educated classes, have grappled with this phase of the social problem.

THE 6,780,000,000 fr. of $4\frac{1}{2}$ per cent. *rentes* which the French government has lately converted into a $3\frac{1}{2}$ per cent. owed its existence to the two famous issues of 5 per cents., made in 1871 and 1872, and known as the five milliards, a large part of their proceeds having been devoted to the payment of the indemnity exacted by Germany at the close of the war of 1870-71. The 5 per cents. were exchanged in 1883 for $4\frac{1}{2}$ per cents., guaranteed against reimbursement for ten years; and the $4\frac{1}{2}$ per cents. then created have now been exchanged for $3\frac{1}{2}$ per cents., with a similar guarantee. In both cases, nearly the whole outstanding amount was exchanged, only an insignificant fraction of the holders requiring to be paid off. The singular good fortune which marked the French finances for a few years after the war has not deserted the loans then made, these two operations being among the very few cases where France has effected a genuine conversion not accompanied by some more or less disguised borrowing.

THROUGH the courtesy of Commissioner Carroll D. Wright we are enabled to present a statement of the scope of the publications to be expected from the Eleventh Census and of the progress which has been made to date toward the completion of the whole program.

The final reports of the census of 1890 will fill twenty-four volumes, distributed as follows:—

1. Population. Part I.
2. " Part II.
3. Vital Statistics. Part I.
4. " Part II.
5. " Part III. and Social Statistics of Cities.
6. Insane, Feeble-minded, Deaf, and Blind.
7. Crime, Pauperism, and Benevolence. Part I.
8. " " " " Part II.
9. Churches.
10. Manufactures. Part I. States, etc.
11. " Part II. Cities.
12. " Part III. Reports of Special Agents.
13. Wealth, Debt, and Taxation. Part I. Public Debt.
14. " " " " Part II. Valuation and Taxation.
15. Insurance. Part I. Fire, Marine, and Inland Insurance.
16. " Part II. Life Insurance.
17. Agriculture, Irrigation, Fisheries.
18. Transportation. Part I. Transportation by Land.
19. " Part II. Transportation by Water.
20. Mineral Industries.
21. Indians.
22. Alaska.
23. Real Estate Mortgages.
24. Farms and Homes: Proprietorship and Indebtedness.

In addition there will be certain miscellaneous publications, namely:—

- Compendium. Part I. Population.
- " Part II. Vital and Social Statistics; Educational and Church Statistics; Wealth, Debt, and Taxation; Mineral Industries; Insurance; Foreign-born Population; Manufactures.
- Compendium. Part III. (Subjects undecided.)
- Digest.
- Statistical Atlas.
- Monographs not appearing in final reports.

As to the stages which preparation and publication have

reached, Commissioner Wright sends the following memorandum:—

Of the foregoing Part I., Public Debt (No. 13), was published September 14, 1892; the volume on Mineral Industries (No. 20) was published October 4, 1891; that on Alaska (No. 22) February 9, 1893; and Part I. of the Compendium December 8, 1892. Of the twenty-four volumes of final reports, therefore, three volumes have been given to the public. The condition of the remainder (March 15, 1894), is as follows:—

1, 2. Population. Part I.: copy is all ready and one-half of the volume in plate. The copy for Part II. cannot be ready until midsummer.

3, 4, 5. Vital Statistics. Part I.: the tables are all in type. Of Part II. the copy is three-fourths ready, but the completion of the volume depends upon the final population volume. This is also true of Part III., so far as it relates to Vital Statistics. So far as it relates to Social Statistics of Cities the copy is ready.

6. Copy is ready for the volume relating to Insane, Feeble-minded, Deaf, and Blind.

7, 8. Parts I. and II. of Crime, Pauperism, and Benevolence, are all in type except the text analysis, which is practically finished.

9. The volume on Churches is in the printer's hands.

10, 11, 12. Manufactures. Part I. is ready *à la* copy. So is Part II., and this part is largely in type. Part III. (Reports of Special Agents) is half completed, and will be finished the middle of May.

13, 14. The copy of Part II. (Valuation and Taxation) is all ready for the printer.

15, 16. Part I. on Insurance is in type, and the copy of Part II. finished.

17. The volume on Agriculture will be all in copy before the close of March.

18, 19. Parts I. and II. of Transportation are in type.

21. The copy of the report on Indians is completed.

23. The copy on Real Estate Mortgages is completed, and that on Farm and Home Proprietorship and Indebtedness is about one-half completed. The remainder cannot be finished before August or September.

Parts II. and III. of the Compendium are well advanced, but depend for completion upon the printing of the final reports. The Digest, which by law is to consist of not exceeding two hundred pages, cannot be finished until the final reports are completed. One-half the copy for the Statistical Atlas is ready.

When it is said that copy is ready, the statement gives no indication when the public will receive the volumes. Seventeen or eighteen volumes, involving fifteen or sixteen thousand quarto pages of statistical matter, will be thrown upon the printer before the 1st of July. To bring out this enormous mass of material will take much time and involve great labor in proof-reading and revision. It will probably be at least two years from the 1st of July before the last printed page relating to the Eleventh Census will be given to the public.

RECENT PUBLICATIONS UPON ECONOMICS.

[Chiefly published or announced since January, 1894.]

I. GENERAL WORKS, THEORY AND ITS HISTORY.

- CORCORAN (M.). *Essays in Political Economy*. [Dedicated to Cardinal Gibbons.] Omaha: Pub. by author. 8vo. pp. 108. 25 cts.
- DALLA VOLTA (R.). *Le Forme del Salario*. [Reprinted from *L'Economista*.] Florence: Frat. Bocca. 16mo. pp. 202.
- GRAZIANI (A.). *Le Idee Economiche degli Scrittori Emiliani e Romagnoli sino al 1848* [from the 16th century]. Reprinted from *Memorie della R. Accademia di Modena*. Modena: Tip. Soliani. 4to. pp. 187.
- KIDD (BENJ.). *Social Evolution*. New York and London: Macmillan. 8vo. pp. 348. \$2.50.
- MACFARLANE (C. W.). *The History of the General Doctrine of Rent in German Economics*. Leipzig: G. Fock. 8vo. pp. 61. 1.20 m.
- MAYER (G.). *Lassalle als Sozial-ökonom*. Berlin: Mayer & Müller. 8vo. pp. 142. 2.40 m.
- PALGRAVE (R. H. I., Editor). *Dictionary of Political Economy*. Sixth part [to Eyton, completing Vol. I.]. London and New York: Macmillan & Co. 8vo. pp. 641-800, title, and pp. xvi. \$1.00.
- SPERBER (O.). *Die sozialpolitischen Ideen Alexander Herzens*. Leipzig: Duncker & Humblot. 8vo. pp. 157. 3 m.
- WÄNTIG. *Auguste Comte und seine Bedeutung für die Entwicklung der Sozialwissenschaften*. Leipzig: Duncker & Humblot. 8vo. 5 m. [Announced.]
- WASSERAB (K.). *Die National-oekonomie nach ihrer Stellung, Methode, und ihrem neueren Entwicklungsgang. Eine Einleitungsvorlesung*. Leipzig: Duncker & Humblot. 8vo. pp. 27. 1 m.
- WOOD (H.). *The Political Economy of Natural Law*. Boston: Lee & Shepard. 8vo. pp. 310. \$1.25.

In Periodicals.

- FORNARI (T.). *Guidizii di F. Ferrara intorno ad Alcuni Economisti Italiani*. *Giorn. degli Econ.*, March.
- HOEWICH (I. A.). *Rate of Profits under the Law of Labor-value*. *Journ. of Polit. Econ.*, March.
- KOMORZYNSKI (J. von). *Thünens naturgemässer Arbeitslohn*. *Zeitschr. für Volksw., Socialpol., und Verw.*, II., Heft 1.
- LEA (H. C.). *The Ecclesiastical Treatment of Usury*. *Yale Rev.*, Feb.
- LEWIS (W. D.). *Adaptation of Society to its Environment*. *Annals Am. Acad. Polit. and Soc. Sci.*, Jan.
- WENCKSTERN (A.). *Le Play*. *Jahrb. f. Gesetzg.*, 18, Heft 1.

II. SOCIAL QUESTIONS, LABOR AND CAPITAL.

- BONZON (J.). Cent Ans de Lutte Sociale. La Législation d'Enfance, 1789-1893. Paris: Guillaumin. 18mo. 3.50 fr. [Announced.]
- BROOKS (J. G.). Compulsory Insurance in Germany (Fourth Special Report of the Department of Labor). Washington: Government Printing Office. 8vo. pp. 370.
- COGLEY (J. S.). The Law of Strikes, Lockouts, and Labor Organizations. Washington: Lowdermilk & Co. 8vo. pp. 391. \$4.00.
- COMMONS (J. R.). Social Reform and the Church. New York: T. Y. Crowell & Co. [Announced.]
- FRY (T. C.). A Social Policy for the Church, and Other Papers on Social Subjects. London: Rivington. Post 8vo. pp. 128. 2s.
- GRAMEGNA (L.). Progresso e Bisogni. Turin: Tip. Vinc. Bona. 8vo. pp. 156. 2.50 l.
- KARPELES. Die Arbeiter der mährisch-schlesischen Steinkohlenreviere. Band I. Leipzig: Duncker & Humblot. 8vo. 10 m. [Announced.]
- KUHNA. Die Ernährungsweise der oberschlesischen industriellen Bevölkerung. Leipzig: Duncker & Humblot. 8vo. 6 m. [Announced.]
- MARGANI ORTISI (A.). La Giustizia Sociale: Esame Critico del Malessere Economico e Morale del Popolo Italiano e della Questione Sociale. Catania: Rob. Giuntini. 8vo. pp. 238. 2 l.
- MEERENS (L.). Étude Pratique sur les Habitations Ouvrières. Brussels: Bruylant. 8vo. pp. 88. 2 fr.
- SARTORIUS. Die Arbeitsverfassung der englischen Kolonien. Strassburg: Trübner. 8vo. 4 m. [Announced.]
- SMART (W.). Miners' Wages and the Sliding Scale. Glasgow: Maclehose. pp. 84. 6d.
- SUTTER (Julie). A Colony of Mercy [at Bielefeld, Bavaria]; or, Social Christianity at Work. New York: Dodd, Mead & Co. 8vo. pp. 364. \$2.50.

In Periodicals.

- ALBERTINI (L.). La Questione delle otto ore di Lavoro. Giorn. degli Econ., Jan., March.
- BAINBRIDGE (E.). The Strike of 1893. Contemp. Rev., Jan.
- BELL (H.). The Living Wage. Nat. Rev., Feb.
- CUNNINGHAM (W.). A Living Wage. Contemp. Rev., Jan.
- EDWARDS (C.). The Lockout in the Coal Trade. Econ. Journ., Dec.
- FARRELLY (M. J.). An Aspect of Old Age Pensions. Internat. Journ. Ethics, Jan.
- FREESE (H.). Wohnungsnoth und Absatzkrisis. Jahrb. f. Nat. Oek., 6, Heft 5.
- HUNTER (W. A.). Outdoor Relief: Is it so very Bad? Contemp. Rev., March.
- KUNWALD (L.). Die Reform der öffentlichen Armenpflege in Niederösterreich. Zeitschr. für Volksw., Socialpol., und Verw., III., Heft 1.
- LOCH (C. S.). Some Controverted Points in the Administration of Poor Relief. Econ. Journ., Dec. Part II. [conclusion].
- LONGE (F.). The Coal Strike and a Minimum Wage. Econ. Journ., March.
- MALARCE (A.). Crédit Populaire industriel ou agricole [in Germany and France]. Journ. des Econ., Jan., Feb.

- McCook (J. J.). Tramps. *Charities Rev.*, Dec.
 MUNRO (J. E. C.). Some Economic Aspects of the Coal Dispute, 1893. *Econ. Journ.*, March.
 NASH (V.). The Employers' Liability Bill. *Fortnightly*, Feb.
 PERCY (C. M.). The Coal Dispute of 1893: Its History, Policy, and Warnings. *Econ. Journ.*, Dec.
 PORRITT (E.). English Labor in and out of Parliament. *Yale Rev.*, Feb.
 RAE (John). The Eight Hours' Day and Foreign Competition. *Contemp. Rev.*, Feb.
 SELLERS (E.). The Austrian Poor Law System. *Charities Rev.*, Feb.
 THRELFALL (T. F.). The Political Future of "Labor." *Nineteenth Cent.*, Feb.
 TWINING (Miss L.). Women as Official Inspectors. *Nineteenth Cent.*, March.
 UNSIGNED. The Economy of High Wages. *Edinburgh Rev.*, Jan.
 WENDY (Helen). The Industrial Residium. *Econ. Journ.*, Dec.
 WILLIAMS (W. M. J.). A Poor Man's Budget. *Fortnightly*, March.

III. SOCIALISM.

- LUX (H.). Étienne Cabet und der ikarische Communismus. Mit histor. Einleitung. Stuttgart: Dietz. 8vo. pp. 306. 1.50 m.
 PRANGE (O.). Das rothe Gespenst. Sozialistische Gedanken eines nicht-Sozialdemokraten. Stuttgart: R. Lutz. 8vo. pp. 127. 1.50 m.
 ROSEWATER (F.). '96: A Romance of Utopia, presenting a Solution of the Labor Problem, a New God, and a New Religion. Omaha, Neb.: The Utopia Co. 8vo. pp. 268. 50c.
 UNSIGNED. Protokoll über die Verhandlungen des Parteitages der sozialdemokratischen Partei Deutschlands, abgehalten zu Köln 22-28 Okt., 1893. Berlin: "Vorwärts." 8vo. pp. 287. .40 m.
 ZEIGLER. Die Naturwissenschaft und die sozialdemokratische Theorie, ihr Verhältniss dargelegt auf Grund der Werke von Darwin und Bebel. Stuttgart: Enke. 8vo. 4 m. [Announced.]
- In Periodicals.*
- BLIND (K.). The Rise and Development of Anarchism [chiefly on Bakunin and Proudhon]. *Contemp. Rev.*, Jan.
 MALLOCK (W. H.). Fabian Economics. *Fortnightly*, Feb., Mar.
 UNSIGNED. Anarchist Literature. *Quarterly Rev.*, Jan.
 ZELLER (J.). Le Socialisme au Temps de la Réforme en Allemagne. *Nouvelle Rev.*, March.

IV. LAND.

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THE
QUARTERLY JOURNAL
OF
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JULY, 1894

THE THEORY OF WAGES ADJUSTED TO
RECENT THEORIES OF VALUE.

"LABOR, like all things which are purchased and sold, and which may be increased or diminished in quantity, has its natural and its market price." Thus Ricardo, as the best representative of the classical school of economists, distinctly enunciates the proposition that wages come under the general law of value and price. Having previously settled to his own satisfaction the theory of value, he then proceeds to develop his theory of wages in strict accordance therewith.

"Labor also has to be studied as a distinctly social element. It has its final increment, and the product of that increment fixes the rate of wages. On one grand law of variation depend the value of goods, the rate of interest, and the rate of wages. . . . It is an all-embracing law."* Thus Professor Clark, as one of the leaders in the new school of economists whose investigations centre around the Austrian theory of value, confirms the opinion

* "A Universal Law of Economic Variation," by John B. Clark, *Quarterly Journal of Economics*, April, 1894, p. 279.

of Ricardo that wages and value come under the same general law.

The classical English economists, after the example of their great leader, were seeking "The Nature and Causes of the Wealth of Nations," or how the national wealth might be increased. It was natural, therefore, that they should concentrate most of their attention upon the subject of production, and treat exchange, distribution, and even consumption from the standpoint of their bearing upon the increase of wealth. Adam Smith's greatest contribution was his inimitable presentation of the productiveness of exchange, based as it is upon the principle of the division of labor. Ricardo's theories of rent and wages were intended to explain why goods were not produced more cheaply and abundantly. J. S. Mill, with great acuteness and consistency, from his standpoint distinguishes between productive and unproductive consumption. Clearly apprehending that fundamental principle of economic science which goes by the name of the law of supply and demand, these economists made a much more thorough analysis of the side of supply than of the side of demand. They knew perfectly well that the "effectual demand" for a commodity increased or diminished as its price fell or rose; but it was no part of their work, as they conceived it, to enter into an analysis of human wants to find out why it was so. It was reserved for a later school to call attention to the principle of the variability and satiability of wants, and to develop a new theory of value based upon that principle.

The classical economists, being concerned chiefly with the question of production, observed a general tendency in most commodities to exchange in the ratio of their costs of production. They quite naturally arrived at theories of "natural value," "normal price," and "natural wages" based upon the cost of producing commodities in the one case and of maintaining the supply of labor in the

other. Accordingly, they gave a very thorough and complete analysis of the factors which enter into the cost of production of goods and a fairly complete analysis of the cost of production of labor. So far as the older economists went, they were eminently wise and consistent; and their fault, which was manifestly no fault at all, was that they had not completed the science by knowing all that was to be known about it. Later developments in the theory of value, however, seem to make desirable a re-statement of some of the problems that cluster around that theory.

In the first place, it is now apparent that cost of production is only one factor, and by no means the most important factor, in the determination of value. Cost of production is only one of the things that limit supply, and only in so far as it operates to limit supply does it enter into the question of value or price. The chief service of the theory of the variability and satiability of wants is to show us the principles which limit demand, as cost of production, in the case of those commodities which can be increased or diminished in quantity by industry, limits supply. Until we understand how demand is limited, no satisfactory reason can be given why every useful thing — air, for example — should not possess value. There is a limit to the supply even of air. Unless demand were in some way limited, even air must have a value. Air is not only limited, but it is appropriable. There are a certain number of cubic feet of air in my room. I can close the windows, and appropriate it; but I cannot sell it. The supply of air is so great that under ordinary circumstances our desire for it is fully satiated before any scarcity is felt. What any one may be able to appropriate does not, under ordinary circumstances, leave other members of the community with less than they want. Everything, of which the supply is so limited that any member of the community is unable to procure enough to thoroughly satiate his

desire for it, has a value; and nothing else has. It is immaterial to the question of the value of a commodity whether its supply is limited by one cause or another.

With some things the supply is absolutely fixed, and cannot be increased by human exertion. Senior mentions meteoric stone as an example. The paintings of the old masters and other rare works of art also illustrate the same point. In such cases, the cost of production does not enter into the question of value. There are some things, on the other hand, of which the supply is chiefly limited by the cost of producing them. In such cases, the final utility of successive increments decreases until it is no more than sufficient to repay the cost of producing them. Here production will cease, because no more could be produced without a loss. If the cost were less, production would go on further: if it were greater, production must have ceased earlier. If the production of silver, for example, becomes cheaper, the price of silver will not immediately be proportionately reduced; but the increased profits of mining will induce a greater production. The increased supply will ultimately reduce the marginal utility and the value of silver. If it becomes more expensive to mine silver, the increased cost is not directly added to the price of silver; but it will indirectly raise its price. The diminished profits will drive out the marginal producers of silver, so that the supply will ultimately be reduced, and the final utility and the value will be raised. In the case of silver and of most other commodities the efficient cause for the limitation of the supply is the cost of production.*

If we may interpret production to mean the placing of things in such relations that they may be utilized in the

* It is true that the value in such cases corresponds to the cost of producing the most expensive increment, but it is as nearly correct to say that the value *determines* the most expensive increment as to say that the most expensive increment *determines* value. The value of the product determines the margin of cultivation quite as truly as the margin of cultivation determines value.

satisfaction of wants, we shall find that the principle of cost of production as limiting supply applies to land as well as to other commodities, but in a slightly different way. Throughout the community there is a certain fixed quantity of land that can be utilized. Until the limitations set by nature are reached,—in other words, so long as there is unoccupied land in the community,—the only effective limits to the supply of land are those set by the cost of making use of it,—of cultivating the poorer qualities or of overcoming the obstacle of distance in the case of the more remote portions.

When we come to view the subject of cost of production in this light, it must appear that much of the discussion that has taken place in economic science is groundless. The disputants are looking at different sides of the same shield. Take, for example, the discussions of the past over the theory of rent. The Physiocrats, who held that rent was due to the productivity of land, or the "bounty of nature," were at least half right. But they overlooked the fact that nature was also bounteous in air and sunlight, yet they command no rent. Ricardo, who accounted for rent solely on the ground of the scarcity of fertile land, or the "niggardliness of nature," was scarcely more than half right; for nature is just as niggardly—speaking absolutely—of unproductive as of productive land, yet unproductive land commands no rent. The Physiocrats held that land would command a rent because its productivity made it a thing to be desired or demanded. Ricardo held that it would command a rent because the available supply was limited. The Ricardians very justly assert that land is only demanded where it is scarce, but the Physiocrats might with equal justice retort that land is only scarce where it is demanded; and we may also remark that the same two assertions may be made with regard to any other commodity. To the Ricardian argument that a piece of land yields a surplus only be-

cause land of like kind and quality is scarce, the Physiocrats might consistently reply that land of that particular kind and quality may be no scarcer than land of any particular kind and quality below the margin of cultivation, and that the difference is in the fact that people *want more* of that particular kind and quality.

Among rational writers on the subject of Interest, some have held that it is paid because capital is productive, and others that it is a reward for abstinence. In the *Quarterly Journal of Economics* for October, 1893, I have attempted to show that both productivity and abstinence are necessary to the existence of interest. The productivity of capital is the basis of the demand for it; but, unless the supply were limited, it would be as impossible to get interest for capital as for air. The sacrifice of abstinence is the efficient cause for the limitation of the supply of capital. It is the purpose of this paper to attempt an analysis of the demand and the supply of labor, and to bring the question of wages under the same general law of value and price.

In tracing out the complex elements that enter into the question of wages, men are prone to wander from the primary fact that demand and supply fix the rate of wages just as they do the price of commodities. The productivity of labor; the standard of living of the laborer, his probable duration of life, the danger or disagreeableness of the work itself, and other similar conditions, only affect wages as they influence the demand for or the supply of labor. This statement ought to be as trite as any in economic literature; but, from a study of current writers on wages, it appears to be less trite than novel. This is perhaps a sufficient justification for appearing to ring the changes on demand and supply.

Demand, as Marshall emphasizes, is essentially a feature of consumption, and applies primarily only to consump-

tion goods. The demand for the instruments of production is derived from that of the goods which they produce. In either case, the demand is based solely upon the utilities which the things afford,—directly in the case of consumption goods, indirectly in the case of instruments of production. A considerable portion of total demand for land is based upon the utilities which land affords directly, as in sites for dwelling-houses, parks, and pleasure grounds. Similarly, a certain amount of borrowing is done for the purpose of direct consumption, and a certain amount of labor is employed in personal services. But by far the greater part of land, labor, and capital, is used for the purpose of producing goods for direct consumption. Moreover, the demand for these factors, whether for direct or indirect use, is based on the same law of variation. Therefore, for the purpose of this paper, we may ignore the difference in the two kinds of demand, and speak of the demand as based upon the productivity. It will make no difference in the final result.

The productivity of each of the three factors of production is subject to the same law of variation as the utility of consumption goods. The productivity of successive increments of either of the factors of production diminishes in the same manner as the utility of successive increments of consumption goods. This gives rise to the law of final or marginal productivity, corresponding to the law of final or marginal utility. As the value of any kind of consumption goods is determined by the amount of utility which the last and least useful increment affords *directly*, so the selling price of a factor of production of any special kind and quality is determined by the amount of utility which the last and least productive increment is capable of affording *indirectly*.

In the first place, if one of the factors of production — land, for example — is abundant, those commodities which land supplies will be abundant, and will consequently

have a low marginal utility and value. Thus the land would produce a small amount of value. In a new settlement in a timbered country the products of the forest are cheap. Cattle on the plains of South America are worth but a few cents apiece. The land, under such circumstances, is probably capable of producing, with equal care, as large quantities of beef or timber as in more thickly settled countries; but it produces less value. This same principle will apply equally well to labor or capital. Where labor is abundant, as in China, the distinctive products of labor will be cheap because of their abundance and their low marginal utility.

In the second place, neither land, labor, nor capital, is alone capable of producing anything of value. The co-operation of all is necessary. The laborer must at least have land to stand on. Even then, without the assistance of capital in some form, his power of production will be almost nothing. Land, if we except the spontaneous fruits of the virgin soil, is absolutely barren unless labor and capital are applied. Capital in the absence of land and labor is manifestly unproductive. Good results can only be obtained by the combination of all three factors. When any one of the factors is abundant relatively to the other two, it is at a disadvantage so far as the opportunity for profitable employment is concerned. Thus, if land is abundant relatively to labor and capital, it must suffer from lack of proper cultivation; and its marginal productivity, even of quantities of commodities, will be reduced, and its marginal productivity of values will be reduced in a still greater degree. The community would suffer less loss in total production if an acre of land were annihilated than it would if land were less abundant or labor and capital more abundant. If land were scarce relatively to labor and capital, each acre would contribute a greater share of the total value produced in the community than if it were abundant. Its cultivation would

be more intensive; and the annihilation of an acre would displace more labor and capital, and cause it to be employed along a lower and less profitable intensive margin on the remaining portion. Consequently, land would, under these conditions, have a high marginal productivity; and the last increments of labor and capital, being employed along a comparatively unprofitable margin of cultivation, would have a low marginal productivity. A certain quantity of labor or capital could be lost without so serious a diminution of the total product as would be the case if land were relatively more abundant. The loss would be taken off the least productive margin of cultivation, and in either case the marginal productivity of the remaining portion would be increased. But, when land is relatively scarce, cultivation is extended to a less profitable margin than when it is relatively abundant.

If capital is abundant relatively to land and labor, the opportunity for profitable investment is diminished. We must assume that at any given time the laborers are supplied with as much auxiliary capital as they can, with the knowledge they possess, make use of at the current rate of interest. If it is known to men that they can increase their profits by the use of more capital, there is no conceivable reason for their not using it. But, if men cannot see how they can profitably use more capital at current rates of interest, then there is a good reason for their not using more. This is one of the assumptions upon which the doctrine of the diminishing productivity of capital as well as of labor rests. Did the productivity of capital increase as fast or faster than its quantity, we might expect every user of capital to augment his supply of tools and machinery "world without end." But the manufacturer, as well as the carpenter or blacksmith, always comes to a point where the advantages of a few more tools are not sufficient to repay their cost.

If labor increases relatively to land and capital, the

laborer is handicapped by lack of proper tools and sufficient room to work to the best advantage. He can therefore be less profitably employed than he can when there is a smaller number of laborers. The last laborer added to the supply adds less to the total product than his predecessors. The marginal productivity of labor is reduced. The loss of a laborer would make less difference in the total product than if laborers were scarcer.*

Hitherto we have excluded the consideration of dynamic changes, such as the discovery of new processes or changes in consumption, etc. Under static conditions we have found that the marginal productivity of a factor of production varies inversely as the supply of that factor. Here we may remark that there are numerous dynamic elements that obscure, but do not obliterate, the workings of this law.[†] A change in taste or fashion may increase the demand for those commodities in which labor enters as the chief factor, and diminish the demand for those in which land enters as the chief factor, and thus raise wages and reduce rent, even while labor is increasing faster than land. An invention may enable one of the factors to be substituted for another, and displace it to a certain extent. An improvement in construction which permits the erection of twenty-story buildings enables capital to displace land to a limited extent. The same service may be performed by a smaller quantity of land when twenty floors are used than when only ten can be used. This will have a tendency to keep ground rents lower than they otherwise would be.

There are, as we have already seen, two distinct reasons for the diminution of the productivity of the successive increments of the factors of production. First, the general diminution of the marginal utility of the products themselves operates to reduce the value produced per unit

*See Clark, "Law of Wages and Interest," and Stuart Wood, "The Theory of Wages," in vol. iv., *Publications of the American Economic Association*.

of either of the factors. Second, a relative abundance of one of the factors over the others tends to reduce, not only the values, but also the quantity of things dependent for their production upon each unit of the more abundant factor. The first may operate upon all three factors either simultaneously or separately. The second may only act upon them separately as their ratios vary.

The subject of the demand for capital is comparatively simple. The marginal productivity of capital tends to an equality throughout the economic community. Slight differences in rates of interest are easily accounted for. Capital differs from land in that it is mobile and capable of indefinite concentration, except in extraordinary cases, at the time and place of greatest productivity. It moves somewhat slowly and with a certain amount of friction; but, if time is given, it will find the point of greatest productivity. Thus there tends to be a common rate of interest in the community, and the subject of capital is not complicated by the question of rent. Capital differs from labor power in that it can be indefinitely increased or diminished in any of the multiplicity of forms in which it is capable of being employed. Those forms of capital which promise the greatest productiveness may be in general increased until their marginal productivity is reduced to the level of other forms.* There is always a flow of new capital seeking investment, and it tends to seek the most productive fields. But labor power is embodied in men, and it is not possible to indefinitely increase or diminish special forms of ability at will. Hence we have to deal with the question of difference of wages in different occupations. The flow of new labor power that is constantly seeking employment has its character largely predetermined by forces that are not subject to human direction.

* Patents, of course, are an exception. The extra profits due to such monopolies form a species of rent.

Differences in rent are due to the inability to indefinitely concentrate land in the forms and the times and places of greatest productivity, and differences of wages are due to the inability to indefinitely concentrate labor power in the forms where it is most productive. Owing to the slowness with which capital moves, it frequently does, for limited periods, in certain forms or times and places, command a rent; but this cannot be permanent.

Here let us decide upon a distinction between labor power and capital. That between labor and land is clear, and that between land and capital does not concern us in this paper. We shall include under labor power all subjective means of production, whether native or acquired. This will include all those talents acquired by education, training, and those physical, mental, and moral qualities due to good food and family surroundings, as well as native and inherited qualities. Some have preferred to regard the expenses of education and training as an investment of capital, and the increased productiveness which results as interest. This may be quite logical, but it can scarcely conduce to clearness. There is no way of distinguishing between the expense of education and the general expense of rearing. It would be quite as logical to go still further, and regard the whole expense of rearing and also of maintaining the laborer as an investment of capital, and reduce the whole question of wages to one of interest. Then, if, with Professor Hadley,* we reduce the question of interest to "commuted profits," and follow out his argument consistently, by reducing rent also to commuted profits, we shall then be in the delectable position of having nothing but profits to deal with. In other words, we shall have the whole question of distribution to go over again to see what determines how much of profits are commuted as interest

* "Interest and Profits," *Annals of the American Academy of Political and Social Science*, November, 1893.

and rent, and how much of interest goes in the form of wages. The argument in favor of regarding the expenses of education as an investment of capital receives some support from the comparison with land and the improvements upon it. The objection to this line of argument is likewise from the standpoint of convenience rather than of logical consistency. Improvements on a piece of land may in many cases be removed if a more profitable field presents itself; but education becomes a part of the man, and can in no case be transferred to another and more promising subject. Improvements on land are made solely to increase its value; while much that we call education is largely a matter of consumption, and is undertaken principally for the pleasure of it. The education itself is the reward, and whatever it adds to the man's productivity is a clear gain. Actual business practice enables us to determine approximately what share of the value of real estate is due to improvements and what to the land itself. We are accustomed to settling prices on real estate in every stage of improvement; and we have learned to estimate the value of most forms of improvements. The price of land and of capital goods is, as Böhm-Bawerk has shown, but the expression of the capitalized value of future production. This shows that in actual life men estimate the productive capacity of land and its improvements separately. But as yet we have no method of estimating what portion of a man's productiveness is due to native capacity and what to acquired talents. The fact that separate estimates are not made of the value of a man and his improvements on the basis of the capitalized future production of each is evidence that business practices are in favor of treating labor power as homogeneous, regardless of how the individual comes to possess it.

We have seen that the demand for labor is based upon its productivity, that the productivity of labor is subject

to the law of diminution with successive increments of the supply, and that the effective demand for labor in general is based upon the productivity of the marginal increment. Wages will tend to a level with the productivity of the marginal laborer. The mentioning of the marginal laborer suggests the question what determines the margin, or what determines the supply of labor. This brings us to another and equally important side of the question of wages. Unless the supply of labor is in some way limited within definite bounds, there will be no wages. Labor would increase until its marginal productivity reaches the zero point.

In the first place, the supply of labor is a quantity of two dimensions; and each dimension is limited by a somewhat different set of circumstances. The total supply of labor may be increased either by increasing the number of laborers or by increasing the intensity with which each labors. By intensity we mean the amount of productive energy expended by each laborer. The time during which he works is one of the factors of the intensity. This conception of intensity is somewhat at variance with the quantitative notions of labor as given us by Jevons.* He regarded the quantity of labor as the product of time and intensity, and intensity to consist in the quantity of work done or the painfulness of doing it. The painfulness of labor does undoubtedly help to limit the amount of labor performed, but it does not seem expedient to regard the painfulness itself as a part of the quantity of labor. Besides, the painfulness of labor limits the time quite as effectively as the rate of labor. On the whole, it seems better to treat both the time and rate of labor under the head of intensity, since the same cause — namely, painfulness — limits both. It is immaterial to the laborer whether he works long hours at a slow rate or short hours at a rapid rate, provided the pain or sacrifice is equal in both cases.

* *Theory of Political Economy*, London, 1879, pp. 184, 185.

Any treatment of the subject of wages which ignores the question of numbers is incomplete. If we conceive of a man as living alone in a Robinson Crusoe state, the question of numbers might very well be ignored, and the subject be treated simply from the standpoint of a calculus of pleasures and pains. There would then be no question of distribution, and the reward of labor would be purely a matter of production. We might then stop when we had shown that the laborer would quit working when the painfulness of further labor would outweigh the pleasure of further reward. But, when other laborers enter upon the island, a new element is introduced. The question of the reward of labor is still a question of production, but of production under changed conditions. The laborer has more limited means at his disposal, and also has a chance for co-operation and a division of labor. The introduction of numbers gives rise to a question of distribution.

As already suggested, the intensity of labor is regulated by the pain or the sacrifice involved in labor. The total sacrifice consists not only in the positive pain of weariness, but in the confinement which prevents the laborer from the fullest enjoyment of his earnings * and a number of other disagreeable features. Still, the factors which regulate the intensity of labor are comparatively simple.† But the factors which regulate the other dimension of the supply — namely, numbers — are more complex, and vary somewhat among different occupations. With the general class of unskilled laborers the question of the limitation of this dimension of the supply is mainly involved in the question of population.

Consistently with the cost of production theory of value which he held in common with the other classical econo-

* Patten, "Cost and Expense."

† See Clark's "Law of Wages and Interest," "Possibility of a Scientific Law of Wages."

mists, Ricardo endeavors at some length to show that the natural price of labor is fixed by the cost of producing laborers. "The natural price of labor is that price which is necessary to enable the laborers, one with another, to subsist, and to perpetuate their race without either increase or diminution." In his subsequent argument he considerably modified this rigid form of statement by showing that this price depends largely upon what the laborers themselves consider necessary. Yet in the end he leaves no doubt that he believed that in the long run the tendency was to force the standard of living down to a subsistence minimum. Though Ricardo's form of statement is the more rigid, yet practically the same opinion had been common to his predecessors, including Adam Smith.* To Malthus belongs the credit of having first made a thorough application of the standard of living to the wages question. He first insisted upon the possibility and the importance of raising the standard of living of the laboring classes, by education and more liberal surroundings, so that an effective prudential check on population would be introduced. In common with the other early English economists he concurred fully in the cost of production theory of wages; yet he explained more fully than any one else in what the cost of production of labor consisted,—that it meant, in fact, simply the standard of living of the laborers.

So long as we limit the discussion to the general class of unskilled laborers, the correspondence is tolerably complete between the cost of production of other commodities and the standard of living of laborers. The one operates in essentially the same manner upon price as the other does upon wages.

1. A rise in the standard of living of laborers tends to reduce the amount of labor that will be supplied at any given rate of wages by diminishing the birth-rate, just as

* *Wealth of Nations*, Book I. chap. viii.

a rise in the cost of production of another commodity will reduce the amount of that commodity that will be supplied at any given price.

2. With a given standard of living, a rise in the rate of wages will result in a higher birth-rate and a larger supply of labor, just as, with a given cost of production, a rise in price of another commodity will result in a larger production of that commodity.

3. The laborer does not consciously estimate what it has cost to produce him, and then set the price of his labor accordingly. Neither does the farmer thus set the price of his wheat. In either case, production precedes sale; and the seller gets all he can, regardless of cost of production. But in either case, if the sellers are unable to get enough to induce a continuance of the same rate of production, the supply will be eventually diminished until the price does become a sufficient inducement to continue production. Though the nature of the motives that operate in the two cases are quite different, the effect on price is quite similar.

4. It must be conceded that the standard of living is not the only factor that limits the number of laborers. On the outside is the limit set by the physical capacity for human increase. But one of the important differences between economic man and the uneconomic animals is that with man reproduction does not begin so early nor continue so rapidly as is physically possible. But numerous other causes than economic considerations doubtless check population within the outside limits set by nature. For a variety of reasons society has placed its condemnation upon extremely early marriages. There are other legal and social restraints that also operate in the same way. With equal justice may it be said that cost of production is not the only factor that limits the supply of any commodity. With every commodity there are certain outside limits set by nature, and in many cases there

are legal and social restraints. But within these bounds cost of production does operate. In fact, it operates to such an extent that the supply never reaches these outside limits, so that all other factors become *practically* inoperative. Similarly with population. Economic considerations, the fear of lack of means of subsistence,—according to prevailing standards,—operate to limit population within the bounds set by other factors, so that they become *practically* inoperative; and the standard of living becomes the efficient cause for the limitation of numbers. After allowance is made for all other possible checks, the fact remains that the standard of living operates as a still further check. It adds considerably to the height of the dam that keeps back the flood of possible human increase. This is shown by the statistics of marriages.

In his paper on “Marriage-rates and Marriage-ages,”* Dr. William Ogle has shown most conclusively that in England the marriage-rate varies with the value of exports, and that such statistics as are available indicate that it varies inversely with the number of the unemployed. The marriage-rate in Michigan for the last twenty years has noticeably fallen off in years of depression. In continental countries the marriage rate varies inversely with the price of rye. As might be inferred, the birth-rate varies with the marriage-rate.

These and other instances do but verify the conclusions that one might deduce from the general facts of observation and experience. The plain question of bread and butter enters into a man's calculations even on the subject of matrimony. If the man's standard of living includes not only butter on his bread, but sugar on his butter, it is then a question of bread and butter *and sugar* that enters into his calculations. In other words, if the question of means of living enters into his calculations at all, it must be a question of living according to some standard;

* *Journal of the Royal Statistical Society*, June, 1890.

and it makes a vast difference whether that standard be high or low.

The present tendency of economic science is toward a study of man as the economizer, the satisfier of wants, the chooser between pleasures and pains. Therefore, we may, with perfect propriety, treat man's domestic in common with his other wants, and study his satisfaction of these wants as a part of his economic activity. In accordance with the principle of the declension of utility and the satiation of wants, a man will procure first the thing that satisfies the most pressing want. But after a time that want becomes so far satiated as to be less pressing than another. Then the man's attention will be turned to the satisfaction of the next, and so on. A man will probably be sure of a certain amount of bread before he tries to procure butter. But, when his economic condition assures him of a partial satisfaction of his desire for bread, his desire for butter becomes stronger than his desire for an additional piece of bread. Then he will procure butter also. In the same manner, after his desire for bread and butter is assured of a certain degree of satisfaction, another desire — *e.g.*, that for sugar — becomes effective in giving direction to his activity; and thus, as his economic condition continues to improve, a larger number of desires rise above his horizon, and become effective in directing his economic activity. Somewhere in the scale of desires, his domestic affections have a place, and become effective in their proper order. The position of this particular class of wants in the scale makes what is called the standard of living. Thus it will appear that a high standard of living, when referred to the question of population, may mean one of two things. It may mean that the general scope of the people's wants has been widened and deepened, or that the domestic affections * have been weakened, or both.

* For want of a better term we are compelled to use the term "domestic affections" in a somewhat general sense, including the sum total of those

On the whole, we have every reason for believing that the standard of living acts as an effective check on the increase of numbers and the supply of laborers in general. Therefore, we conclude that the true theory of wages is to be found in a combination of the "marginal productivity," or the "no rent increment," theory of Professor Clark and the "standard of living," or "cost of production," theory of the classical English economists. The law of diminishing productivity furnishes the principle which regulates the demand for labor; and the standard of living, or the cost of production, furnishes the principle which regulates the supply. A suggestive addition to the cost of production side of the theory is attempted in the interesting works of Mr. George Gunton.*

Other writers have shown that different increments of the amount of labor which each man performs cost him different degrees of sacrifice. What we have called intensity of labor is subject to the law of increasing cost. Mr. Gunton has also pointed out that different laborers have different standards of living. This amounts to saying that different increments of what we may call the extensive dimension of the supply of labor are produced at different costs. While it is doubtless true that wages must in the long run be high enough to repay the cost of producing the most expensive increment necessary to carry on production, yet it does not follow that the standard of living of the marginal laborer *directly* fixes the rate of wages. The fact that a man has a high standard of living will no more enable him to get high wages than the fact that an individual bushel of wheat cost the producer a great deal will enable it to sell at a high price.

motives which impel toward marriage and the begetting of offspring. If we distinguish between the animal passions and the higher domestic affections, we shall find that the latter quite often check rather than increase population by making parents more considerate of the future of their children.

* *Wealth and Progress and Principles of Social Economics.*

The standard of living of laborers and the cost of producing wheat only affect wages and the price of wheat by limiting the quantity supplied. It is, perhaps, more nearly true to say that the marginal increment of labor is determined by the price of labor than to say that the price is determined by the marginal increment, though the influence of both is reciprocal. An interesting analogy exists between the price of land on the margin of cultivation and the marginal laborer whose standard of living is so high that he is prevented at current rates of wages from reproducing his kind. There is also an analogy to the intensive margin of cultivation in the probability that there is a limit to the size of the family of every man, and that this limit is affected by and varies with the price of labor. The essential point in these analogies is that different increments of the total supply of labor require different rates of wages to induce their production.

In addition to the intensity of labor and the increase of numbers, we must take account of the fact that labor is not equally painful to all laborers. With some the distaste for labor is so strong that they refuse to work unless they can get the highest wages. Accordingly, rather than accept lower wages they will remain idle. In this respect also there is an ascending scale of cost in the supply of labor, for we cannot regard labor as actually supplied until it is put on the market. Aside from the question of population there are different numbers of laborers that will offer themselves for work at different rates of wages. In this sense also there is a marginal laborer, or one who is just induced to work at any given rate of wages.

The two apparently contradictory theories of wages which we have been considering are to be harmonized in much the same way as the cost and utility theories of value and the abstinence and productivity theories of

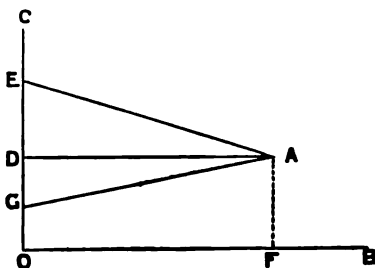
interest have been harmonized. The supply of labor will tend to increase until the last and least productive increment is just able to earn sufficient to compensate for the cost of production and maintenance of the most expensive portion, or until the price is just sufficient to induce the last increment to be put on the market. Wages will tend to correspond to both the marginal productivity and the marginal cost.

An obstacle to the perfect working of this law as applied to labor is the length of time necessary to greatly increase or diminish the total supply of labor. Population changes very slowly, though the fund of unemployed labor may act more quickly on the supply. But it will be difficult to find two commodities whose supplies can be increased or diminished with precisely the same degree of expedition. Labor is simply an extreme case among those commodities whose demand and supply are very slowly adjusted to one another. Yet there is the same tendency for such an adjustment to take place as has long been observed in regard to other commodities. But, in the case of wages, another fact affects the adjustment. A change in the rate of wages so slowly affects the population that the standard of living of the laborers may itself change before the change in the supply brings wages back to the former level. The harshness of the "iron law of wages" is materially softened by the fact that in a free society, and especially in a country of universal education, the standard of living is more easily raised than lowered. The tendency of freedom is to encourage aspirations and ambitions, while the inevitable result of education is to broaden the mental horizon and develop new desires. The inherent optimism of Malthusianism, when properly understood, appears in this connection. To this end Malthus became an apostle of free institutions and political equality, as being conducive to the development of self-respect, dignity, and thrift on the part of the laboring

classes. He attributed habits of improvidence and other proletarian vices to "despotism, oppression, and ignorance." It is something more than mere prediction to suggest that along the lines of liberal surroundings, education, and culture lies the ultimate solution of the labor problem.

Hitherto we have considered the two dimensions of the supply of labor separately. In order to combine them, it will be necessary to adopt some kind of a labor unit. We have already seen that different increments of the expenditure of productive energy involve different degrees of sacrifice on the part of the individual laborer, and secure him different amounts of utility. We have seen, also, that different increments of the supply of laborers are produced at different degrees of cost, and have different degrees of productivity. Now, if we adopt a unit of labor consisting of an hour's labor of a single man at a given rate of expenditure of energy, we shall come naturally to the proposition that the different labor units are supplied at different degrees of sacrifice or cost, and produce different amounts of utility. The law of wages at which we finally arrive will be that *the price of a labor unit will equal the marginal productivity of labor units, on the one hand, and the marginal cost, on the other.**

*This may be illustrated by the familiar diagram. Let the number of labor units be measured along the line OB, and let both the productivity and the cost of the labor units be measured along the perpendicular line OC. Let the productivity of successive increments of labor units be represented by the descending line EA, and their cost by the ascending line GA. The supply of labor will continue increasing until the line EA cuts the line GA. The height of this point of intersection, A, above the line OB, will represent the rate of wages. In this case, the rate of wages will be represented by the line OD, the length of which measures both the productivity and the cost of the last labor unit.



Perhaps the most unfortunate result of a rigid adherence to the "cost of production" theory of wages appears in discussions of the causes of differences of wages in different occupations. Adam Smith lays down the proposition that "the whole of the advantages and disadvantages of the different employments of labor and stock must, in the same neighborhood, be either perfectly equal or continually tending to equality. If in the same neighborhood there was any employment either more or less advantageous than the rest, so many people would crowd into it in the one case, and so many would desert it in the other, that its advantages would soon return to the level of other employments."* In his enumeration of the principal circumstances which "make up for a small pecuniary gain in some employments, and counterbalance a great one in others," he names "the small or great trust which must be reposed in those who exercise them." This contains the rather startling implication that it is a disadvantage to have confidence placed in one's self. This is manifestly carrying the cost of production theory a little too far. Moreover, in the other circumstances which he names, he assumes that the difference in the wages between skilled and unskilled occupations is entirely due to the difference in the expense of learning them. But the capitalization of the difference in wages will in many cases prove out of all proportion to the difference in the expense. It would be just as easy to account for differences in the rent of real estate on the basis of the difference in the cost of the improvements. In the case of labor, account must be taken of differences in native and hereditary qualities, just as we must take account of difference in situation and "original and indestructible powers of the soil" in the rent of land.

The marginal productivity of labor of any class determines the rate of wages of that class. But, with different

* *Wealth of Nations* (Rogers ed.), vol. i. p. 103 *et seq.*

kinds and qualities of labor, there are different causes for the limitation of the supply. Hitherto we have simply discussed the causes which limit the general class of unskilled labor. When we consider the supply of skilled or professional labor, we shall find some new factors entering in. There are certain forms of ability so unique and exceptional that it is practically impossible either to increase or diminish the supply. Nature seems to have set the limits, and the possessors of such qualities enjoy a monopoly as absolute as the possessor of meteoric iron or a Sistine Madonna. There are other orders of ability that are capable of cultivation to a more or less limited extent. It is perhaps possible for the average man to acquire proficiency in any of the majority of skilled occupations, if he trains long enough and carefully enough. But different men can acquire proficiency in a given skilled occupation with different degrees of expense, owing to differences in natural talents. The tendency will be for as many men to go into that occupation as can do so with advantage to themselves. But, when those best fitted for it have gone into it, it begins to cost the additional men more and more in the way of preparation. Finally, the man will be reached who is so ill-adapted for that line of work that it will cost him in preparation all that he will ever gain from it. Here the supply of that kind of labor will cease; and its rate of wages will be measured by the *productivity*, as well as by the *expense* of the marginal increment. Those who are able to acquire proficiency in that line of work at a less cost than the marginal man enjoy a rent for their personal qualities.*

The nature of what is usually termed superior ability or talent needs examination. It may mean the capacity

* This may be illustrated by the diagram on page 399. Let the number of laborers be measured along the line OB, and the productivity along the line OC. The line EA will then represent the declining productivity, and GA the increasing cost, of successive laborers, in which case the supply will be measured by OF, the rate of wages by OD, and the sum of personal rents by GDA.

for exerting an absolutely greater amount of productive energy, or it may mean simply the possession of a kind of ability that is scarce, and because of its scarcity commands a high price in the market. The difference is of some importance. Where two men are engaged in entirely dissimilar occupations, it is practically impossible to determine which exerts the greater amount of productive energy or whose absolute productivity is greater. If we compare two bricklayers, and find that one can lay on the average three thousand, and the other only two thousand bricks in a day, it is quite safe to say that the absolute productivity of the former is the greater. But, if we compare a bricklayer with a bank cashier, we have not the data for a similar comparison. It is impossible to say with certainty that the work of the cashier is absolutely more productive than that of the bricklayer. The probabilities are that it is not. If the cashier gets better wages than the bricklayer, it is not due to any absolutely superior ability, but because the kind of ability possessed by the one is less abundant than that possessed by the other. If the jeweller gets better wages than the baker, it is probably for the same reason that an ounce of silver sells higher than an ounce of bread. This is not because the absolute utility of silver is greater, but because, owing to differences in the scarcity, its marginal utility is greater.

To sum up, we conclude that the marginal productivity of labor is the factor that is present in all cases in the determination of wages, that the marginal standard of living and painfulness of labor are the efficient causes for the limitation of the supply of labor in general, that the marginal cost of acquiring proficiency in the skilled occupations is the efficient cause for the limitation of the supply of specially skilled labor, and that there is an element of rent of personal ability as well as of land.

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THE ENGLISH RAILWAY RATE QUESTION.

IV.*

It remains to consider the effects of the legislation of 1888-91, and afterwards the transactions which followed upon the Order Confirmation Acts coming into force.

The general effect of the new legislation has undoubtedly been to intensify the control of Parliament over the railway system. Such a revision of maximum rates as might involve a reduction of them was always strenuously opposed by the railway companies and their advocates. It was alleged that such a policy would be at once unjust and impracticable. The policy has been carried out, although the justice of it is perhaps still open to question, and the practical working of the revised scale has already produced much friction between the traders and the Board of Trade on one side and the railway companies on the other.

In detail the new legislation effects a series of compromises, and offers a series of propitiations. The small trader is propitiated by the refusal to the large trader of the benefit of a reduced rate for train-loads; while even the reduced rate for the truck-load is not so low as the large trader would like. The trader in through traffic is propitiated by the cumulative scale; while the owners of wagons and of sidings are considered in the provisions for dissecting rates, and the powers which make it possible for a trader to perform nearly all the functions of a railway company for himself if he chooses. The trader in heavy goods, coal, iron, etc. (Class A), is, on the whole, the trader most highly benefited by the new regulations. He gets a substantial reduction in rates. On the other hand, the railway companies have obtained increased

* For the article of which this is the continuation, see the *Quarterly Journal of Economics* for April, p. 280.

powers of charge in the higher classes of goods; and they have obtained, moreover, statutory powers to charge terminals, which they had long demanded. There is no evidence so far to show that the agitation of the traders or the action of the legislature in subjecting railway companies to intensified control by the Board of Trade has had any influence in diminishing the attractiveness to the investing public of railway enterprise in England. The table on page 405 shows that the amount of capital proposed to be raised and the number of miles of railway projected have increased largely during the very period when the controversy was acutest.* It is fairly clear that the building of new railways and the investment of capital in them are determined rather by the conditions of industry than by legislative action affecting rates. The year 1889 was "a more than ordinarily prosperous year for the railway companies."† The years 1890 and 1891 were also good years. The increasing volume of trade accounts for the new enterprises; but there is no visible reason to believe that any of these were prevented from coming to maturity by the anticipation of diminished revenues following upon the adoption of the Board of Trade schedule. Since these schedules came into operation only on January 1, 1893, there is hardly yet room for other than provisional conclusions upon their effect. Their advent was nearly coincident with a falling off in trade, which has since almost steadily continued, with the result that traffic receipts are diminished from causes other than those connected with rate movements.

* Mr. Findley, of the London & North-western Railway, argued against reduction of maximum rates, on the ground that the revenue of the railway companies would be thereby "clipped," that the credit of the companies would suffer, and that they would have on this account to pay higher rates of interest upon loans. *Provisional Order Bills Report*, 1891, Part II., p. 1106, Query 10086.

† *General Report to the Board of Trade in regard to Share and Loan Capital, etc., of the Railway Companies of the United Kingdom, for the year 1889* [C.-6157], p. 13.

NEW RAILWAY BILLS PROMOTED, 1887-90.*

	1887.	1888.	1889.	1890.
No. of bills promoted by new railway companies applying for powers . .	19	20	19	23
Length of new lines proposed by these companies in miles	142	226	331	376
Amount of new capital proposed to be raised by these companies	\$41,300,000	\$54,400,000	\$49,400,000	\$84,600,000
No. of bills promoted by existing railway companies applying for powers . .	62	82	73	91
Length of new lines proposed by these in miles .	84	220	223	399
Amount of new capital proposed to be raised by these companies	\$41,300,000	\$66,600,000	\$52,400,000	\$86,800,000
Total length of new lines proposed	226	446	554	775
Total amount of capital proposed to be raised . .	\$83,100,000	\$120,400,00	\$101,800,000	\$171,200,000
Capital proposed to be raised per mile of line . {	\$367,768 (£75,576)	\$248,100 (£55,480)	\$184,705 (£37,963)	\$221,582 (£45,533)

V.

During the winter of 1892-93, immediately after the Provisional Order Confirmation Bills were passed, friction again arose between the railways and the traders. This time the railways were the aggressors. They promptly raised their rates in many cases to the maximum, and at once brought about their ears the loudest expostulations of their aggrieved customers. The companies were clearly anxious to show that maximum rates were unworkable; and the traders were bitterly disappointed at the result of the long-considered legislation. Revision had been called "confiscation"; and the tables were turned upon the "confiscators." In consequence of the action of the

* See *Report by the Board of Trade upon all the Railway, Canal, etc., Bills of Session, 1887; Ibid., 1888; Ibid., 1889; Ibid., 1890.*

railway companies and the loud grumbling of the traders, Sir Albert Rollit, a ship-owner and solicitor, gave notice in the House of Commons in the spring of 1893 of a motion for the appointment of a Committee of Inquiry.* This motion was withdrawn; but shortly afterwards the president of the Board of Trade (Mr. Mundella) moved the appointment of a Select Committee† to inquire into the mode in which the railway companies had exercised the powers conferred upon them in the acts confirming their Provisional Orders passed in 1891-92, and "to consider whether it is desirable to adopt any other means of settling the difficulties arising between the companies and the public with respect to the rates and conditions of charges for the conveyance of goods."‡

This Committee met near the end of May, and continued to receive evidence until November, 1893.§

The chief points in their reports can alone be dealt with. The leading question was, Did the railway companies break faith with the public and with the Board of Trade, in raising at a stroke their actual rates to the maximum allowed by law? That the companies did raise their rates, or the greater part of them, there is no reason to doubt. They really substituted for their existing rate-books a rate-book which contained simply the new maximum rates. The possibility of some such *coup* was at least partially foreseen; and, in some cases at least, the answers of railway managers to queries made during the investigations of 1889-91 were open to the interpretation

* A bill to amend the Act of 1888 had been previously introduced by Mr. R. D. Burnie and others, but it was not proceeded with. Its terms were short and drastic. The companies were to be forbidden to increase rates above the actual rates in existence prior to the passing of the Acts of 1891-92, and were to be subjected to a penalty in case of their being convicted of overcharging. Bill 36, 1st of February, 1893.

† May 16, 1893. See *Hansard*.

‡ *Ibid*.

§ *First Report on Railway Rates and Charges*, 1893, No. 385; *Second Report on Railway Rates and Charges*, 1893, No. 462.

that no such *coup* was intended, or, even if intended, practicable. *

It was pointed out, *e.g.*, by Sir Henry Oakley † that the companies could “not hope to get any increase of rates by exercising any margin of power which” might be given to them, simply because such increase would damage the trade. “If we thought now that an increase would not damage the trade, we should make an addition at this moment.” According to the Report of 1893, ‡ “the bulk of the evidence given on behalf of the railway companies was to the same effect.” The Report adds that, in deference to the representations of the railway companies to the effect that, if the rates on certain classes of goods were reduced, the companies would be obliged to recoup themselves in some way, the Joint Committee raised the maximum rates, in order to reduce the expected loss to the companies. The conclusion of the Report is that,—

The effect of the statements of the railway managers before the Board of Trade Committee and the Joint Committee of the Houses was to lead these bodies and the traders to believe, that the companies could not recoup themselves for any losses resulting from a reduction of the maximum charges by a general raising of rates which were below the maxima. If there had been any general expectation of such action, it is most probable that the provisional orders would not have passed into law; for they would have been strongly opposed by the traders who had the benefit of the existing rates, and who would have objected to their being raised for the benefit of other traders whose rates were to be reduced.

On the other hand, it was undoubtedly expected by the Board of Trade and Parliament that the companies would find it possible to make some increases in exceptionally low rates, to an extent which would partially recover their losses in other directions.

* *E.g.*, Query 5426, p. 668, *Report of 1891*; and Query 13911, p. 1453, *Report of 1891*, etc. A full list of these references will be found in the Appendix to the *Report of 1893*, No. 385.

† Query 13968, *Report of 1891*, p. 1451.

‡ *Second Report*, No. 462, p. v.

The expediency of raising the actual rates to the maxima was anxiously discussed by the railway managers during 1892, and the decision to make the *coup* seems not to have been unanimous. They determined, however, to raise the rates in general to the maxima, on two grounds, partly in order to recoup their losses and partly because of "the difficulties of dealing with the new maxima." The railway managers complained that the time allowed between the passing of the Acts and their coming into force was too short,* and that the classification adopted by Parliament "was not detailed enough." The companies, however, appear to have intended to modify the rates to suit special cases as these arose.

While these complaints were probably not remotely connected with a desire to show that the Acts were unworkable, it is to be noted that they are complaints of details and have no ostensible bearing upon the fixation of maximum rates by Parliament, nor upon the right of Parliament to interfere where the railways suddenly advance their actual rates, even when these advanced rates come within the maxima.

The Committee observe, with some point, that they feel it "difficult to understand fully the explanations afforded by the railway companies, and still more difficult to justify what they do understand of them." The Committee also point out that there were two courses open to the railway companies: one was to issue a maximum rate-book along with an announcement that the rates were provisional, and the other to leave the actual rates as they were, excepting in cases where reduction was required by law, and afterwards to raise any exceptionally low rates by degrees. The adoption of the first course, without, however, any intimation of the provisional character of the

* Although some of the Acts were not passed until the summer of 1892, the London & North-western Railway Act was passed on August 5, 1891, while it did not come into force until January 1, 1893, a period of seventeen months.

rates, produced the result which might have been foreseen by the railway companies; namely, the rebellion of the traders. The Committee found that "such a course was most unsatisfactory, and that the companies were not justified in dislocating trade and alarming so many interests, and in compelling traders to enter into long negotiations with them for the revision of rates.*" It was shown also that, as regards some of the railways, the gain by increased rates was far in excess of the loss by diminished ones.†

Such a policy as that adopted by the railway companies can only be judged by results. There can be no doubt that it failed, if not utterly, at least to a very large extent. The suddenness of the *coup* infuriated the customers of the railways. They withheld payment of their accounts, and the utmost friction was produced. The representations of the traders and of Parliament forced the railways to abandon the position they had taken up, and to return to the rates of 1892, with, however, an increase of 5 per cent. in those rates which were not affected by the reduction clauses, provision for special cases being made gradually. The manœuvre of the railways can thus hardly be said from a tactical point of view to have been well managed. Their action has impressed the public mind with the feeling that they cannot be trusted, and that they must be continually watched; and, more important still, it has brought up the serious question of the practicability of revising actual as well as maximum rates. Some provision for dealing with actual rates is hinted at, although none is specifically recommended in the Report of the Committee.

The most important recommendation of the Committee referred to the Railway Commission and its powers. It is recommended that the membership of the Commission should be subject to revision from time to time, that one of the members should be experienced in trade, and that

* *Report*, 1893, No. 462, p. viii.

† *Ibid.*, p. ix.

costs should not be awarded on either side unless the claim or defence has been frivolous or vexatious.*

VI.

The repeated revival of the railway rates question, and the chronic condition of inquiry in which for twenty years it has existed in almost every country, whatever may be the system of railway administration, suggest that there is some general cause for the pressure upon railway companies to reduce rates, and for their apparent inability to meet the demand to a sufficient extent. Without attempting to develop a theory of transportation, it may be suggested that the general cause, put briefly, is that, while improved transportation has contributed to the reduction of prices of goods, especially in the great market centres,† it has not similarly reduced its own price. In other words, while formerly the sale of 10 pounds of pig iron would realize enough to transport 100 pounds say 100 miles, it would now be necessary to sell 20 pounds of pig iron to transport the same quantity the same distance.‡ Transportation charges thus tend at present to form a progressively increasing proportion of the realized price. In the higher classes of goods the variation of proportion of transport cost to total cost is clearly of less importance than in the case of lower classes of goods. With these lower classes of goods, pig iron and coal, for instance, every reduction of the price, without a corresponding reduction of rate,§ means a serious increase in the ratio of transport cost to total price.

* *Report of 1893*, No. 462, p. xiii.

† Cf. Sax. Schönberg's *Handbuch der Pol. Oek.*, vol. i. pp. 498, 499.

‡ The figures are simply used by way of illustration.

§ This has been to some extent recognized in practice. In the north of England, where the wages sliding-scale is well known, a railway rates sliding-scale was in existence until recently (I am not aware whether or not it exists at the moment). By this sliding-scale, when pig iron falls below 45s. per ton, the rate is reduced by 1% for every 1s. per ton. Cf. *Report Commission on Depression of Trade*, p. 346, 1886, *Second Report*, Part I.

The conditions which the railways have contributed to produce have reacted upon the railways.

The fixation of maximum rates is a subsidiary question. The demand for this is due to the suspicion attaching to all monopolies and *quasi*-monopolies,—that there is an element in the price which is due to exploitation in the sinister sense. The stock list of the English railways does not, however, suggest that this element is important, or, indeed, that it exists at all. The railway rates problem might exist, even though there were no interest to be paid upon capital. If the railways were conducted on the principle of charging bare running expenses alone,* it is conceivable that in time the increased mobility of goods would result, under certain conditions, in prices so low that the transport cost would appear to be an intolerable tax. The increased mobility of goods, with all its economic and social, direct and indirect effects, must be paid for in some way.

A suggestion may be hazarded as to the reason why transport cost should remain relatively high, while prices of goods fall. The reason appears to me to be twofold: (1) The goods which the railway company buys and sells are not principally those in which prices have been diminishing. The consumption of raw material on a railway even in its construction is relatively small: the wage-bill in construction, in maintenance, and in running, is relatively large. I find that the wage-bill on one of the Scotch lines is as follows:—

<i>Percentage to Total Expenses.</i>		<i>Wages.</i>	<i>Materials, etc.</i>
15%	A. Maintenance of way	50%	50%
32%	B. Locomotive power	45%	55%
13%	C. Repairs and renewals	30%	70%
35%	D. Traffic expenses	75%	25%
5%	E. General charges	45%	55%
100%		54%	46%

* Or if the road were free, as the Erie Canal is free.

These figures are probably fairly typical. The cost of human service has probably, on the whole, risen in civilized countries during the past thirty years; and this explains in an obvious way how the cost of transport has been maintained. (2) But perhaps a more important reason than the first is that the law of diminishing returns has a special application to railways. In the mechanism of transportation the limit of possible work from a given installation of that mechanism is reached at an early stage, when compared with the extensive limits of possible work from the productive mechanism of staple products. In those industries whose mechanism is susceptible of rapid improvement, without rendering valueless a disproportionate amount of capital, the curve of production determined by the law of diminishing returns is checked by improvements at frequent points. But transportation is not an industry of that sort. The mechanism of it, in England especially, is among the most permanent orders of mechanism. Even minor improvements are retarded by the costly and substantial character of the railway structures. The Great Western Railway was almost obliged to retain a gauge of line different from all the other railways until 1892, because of the enormous cost the alteration involved. Wagons have not changed in shape or character * since George Stephenson's time, because the curves, the gradients, the turn-tables, the coal shoots, and other appliances would have to be altered to suit a new type of wagon.†

The curve of cost per train mile steadily descends with a frequency of from one to twenty trains per day over the

* *Proceedings of Institution of Mechanical Engineers*, 1890, p. 475.

† *Ibid.*, 1884, p. 441. There are, of course, other reasons why the English railways do not adopt the American type of bogie truck. Among the chief of these is the hilly nature of the mineral fields, so far as mineral traffic is concerned, and the smallness of the lots of goods customarily transported at a time, so far as general merchandise is concerned.

same lines.* The limit is then reached, and with a higher frequency the curve ascends.† Alike as regards the economical limit of speed,‡ of gradient,§ of curvature of line,|| of size and weight of wagons,¶ of number and weight of trains,** the railway companies are "hampered" by the law of diminishing returns,—a piece of legislation which has not been procured by agitating traders, nor concocted by a Joint Committee, but which has all, and more than all, the force of a Provisional Order. Such limitations as have been described in the working of rolling stock, as well as limitations in the efficiency of stations and of administration, have so great a cumulative effect upon the railway system that the cost to it of transporting goods does not diminish quite so fast as the cost of production of those goods.†† If the cost of production be taken as the inferior limit below which the market price of an article in constant supply does not under normal conditions permanently fall, then we may say that the market price of transport is not likely to fall in so great a proportion as the fall which has taken place in the market prices of certain goods.

What must strike any one in studying the English railway system is the great complexity alike of conditions and of interests,—a complexity inseparable from an ex-

*See paper by Lieutenant-Colonel Dowden. *Professional Papers on Indian Engineering*, Series III., vol. iii., No. 10, quoted in *Proceedings of Institution of Civil Engineers* (England), vol. lxxxii. p. 403.

†For American experience to the same effect, see Wellington, *The Economic Theory of Railway Location*, p. 569.

‡See Price Williams, *Institution of Mechanical Engineers* (England), 1878, p. 202; Wellington, *op. cit.*, p. 460.

§ *Ibid.*, p. 346.

|| *Ibid.*, p. 323.

¶ Discussion, *Institution of Mechanical Engineers* (England), 1884, p. 431.

** Wellington, *op. cit.*, p. 571.

†† This principle is probably not confined to railways. The cost of bullock cartage in India is 6d. per ton per mile, which is perhaps a much higher rate than prevailed thirty years ago.

tensive commerce conducted within an area relatively small, but exceedingly diversified in physical and industrial characteristics. A perfectly uniform and simple system, even if it were practicable, would probably be unjust; and thus the only way out of the *impasse* in which the railway problem seems likely to be landed is a more and more strenuous and minute study of the actual conditions under which the traffic is or might be carried on. The railway managers and the traders alike will have to abandon the crass attitude which some of them adopt.* There are probably many important economies in administration which might be effected; and thus a diminution in rates, with probable, although not certain, increase of traffic, might be made without reduction of dividends.†

The railway system has grown so fast that there has been no time in England for thinking about the education of railway managers. Much attention is given to this matter in Germany; and, unless the English railways are to continue to be administered by rule of thumb, without knowledge of their own conditions, much less of the conditions of the railways of other countries, some method of education will have to be devised by the English railway companies in their own interests. Institutes of bankers, of chartered accountants, etc., do a good deal for professional education; but there is absolutely no provision in England for anything of the kind in connection with railways.

As regards the general tenor of English railway policy, it may be said in general terms that the dozen great lines which may be regarded for practical purposes as the English railway system form together a *quasi*-public insti-

* As, for example, on the side of the railways, the objection to giving adequate statistics, on the ground that "it is better for the public not to know too much"; and, on the side of the traders, that the interests of individual classes of traders alone ought to be considered.

† Cf. diagram in *Atti della Commissione d' Inchiesta sull' Esercizio delle Ferrovie Italiane*, 1884, Parte II., vol. ii. p. 957.

tution, which might be put in the same category as the Bank of England. England could no more allow the London & North-western Railway Company to shut up its line and go into liquidation than it could allow the Bank of England to close its doors and go into the bankruptcy court. Both are creatures of statute, with strict limitation of the element of private initiative preserved to them by the nature of their charters. Neither can make any departure out of a well-beaten track without the sanction of Parliament. In the case of the railway companies it is not necessary to go back to the "musty charters of 1840" (although the statute of limitations does not apply to acts of Parliament); every important limitation has been repeated and emphasized in every general railway act from then till now.

We may be quite ready to admit the dangers of State control, the inconveniences of it, the expensiveness of it; but it is plain that, however the English railways have kicked and protested, they have been bound hand and foot by the statutes, and they have never been strong enough to resist Parliament, backed up, as it has been in its relations with the railways, by public opinion. Never free, the railways have, for good or evil, been more and more definitely tied to the State.

The next few years will reveal how far private enterprise will bear the strain of intimate control in detail by a State department.

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THE CIVIL WAR INCOME TAX.

I.

THE Civil War gave birth to many innovations in our financial legislation. Some outlived the war period, and are still thriving in these days of peace: others have disappeared,—it may be forever, but we must not speak too confidently. There were measures which the boldest innovator would hardly have dared propose in time of peace; but under the stress of war they were enacted, sometimes with little opposition and little discussion. And now, after thirty years of peace, there is hardly a feature of this war legislation, from a national banking system to an inflated currency, which will not find earnest support and advocacy among some class of people. The income tax was the first of these innovations to be adopted, and was among the first to disappear. Will it also be the first to be restored? This at the present time is a question of living interest.

The tax was introduced in the act of August 5, 1861. There had been no precedent for such a form of taxation in our history even in time of war. An income tax had, indeed, been suggested during the War of 1812 (Special Report of Secretary Dallas, January 17, 1815), but not seriously considered. Such taxes, however, were familiar enough in England and other European countries; and it is not strange that Congress should have thought of taxing incomes at a period when its policy was to tax everything taxable. It is, however, a little remarkable that the tax should have been introduced so early as 1861; for the act of that year was, on the whole, a very moderate and conservative revenue measure, enacted before the country had any idea how serious and protracted the struggle and how heavy the financial burdens of the war would prove to be. A brief study of the legislative history of the measure will enable us to understand how it came to include such a novelty as the income tax.

Congress was convened in extraordinary session on July 4, 1861. Secretary Chase, in his report on the finances, outlined

the financial legislation which he thought the exigencies of the situation demanded; but he made no reference to an income tax. He expressed the opinion that \$240,000,000 should be raised by loans and \$80,000,000 by means of taxation. The existing tariff, he thought, would yield about \$80,000,000, leaving \$50,000,000 to be secured by new taxes or other revenue. \$27,000,000 could be obtained by increasing the duty on sugar, imposing duties on tea and coffee, and making some other changes in the tariff. \$3,000,000 might be expected from sales of public lands. The remaining \$20,000,000 he proposed to raise "by direct taxes or from internal duties or excises or both." He even intimated a hope that this taxation would not have to be imposed after the current year.

The policy thus outlined in his report relied principally on loans as a means of raising money, and proposed a very moderate, cautious, and, as the event showed, wholly inadequate resort to taxation. It is not surprising, then, that he did not suggest anything so radical as an income tax; for, when he spoke of "direct taxes," he had in mind those forms of taxation which this term, as used in the Constitution, would include,—namely, capitation taxes, taxes on real estate, and "probably," he adds, "general taxes on personal property." As to the income tax, the Supreme Court has since then decided that it is not a direct tax in the meaning of the Constitution.*

The House Committee of Ways and Means followed out the recommendations of the Secretary. They prepared two bills, one of which dealt with the proposed tariff changes, imposing duties on tea, coffee, and sugar. The other was the internal revenue measure. It imposed license taxes and taxes on whiskey, beer, porter, carriages, promissory notes, and bank bills. It also contained a provision for a direct tax of \$80,000,000. This, as the Constitution required, was to be apportioned among the States on the basis of population. The quotas of the loyal States, in which alone the tax could be

* *Springer v. United States*, 102 U. S. 508. The decision was that direct taxes within the meaning of the Constitution are only capitation taxes as expressed in that instrument and taxes on real estate. See article on "The Direct Tax of 1861" in the *Quarterly Journal of Economics*, July, 1899.

made immediately operative, amounted to \$20,000,000. This was a form of taxation of which the country had already had experience. This bill, indeed, was said to be an exact copy of one framed by Albert Gallatin.

When, however, the bill came before the House, it was not received with much favor. One objection urged against it was that it created an army of office-holders for the collection of these taxes; and an effort was made to have the taxes collected by State machinery. But the Committee of Ways and Means reported that they could devise no constitutional means for doing this. To many, however, the most objectionable feature of the bill was the direct tax itself. This was opposed, first, because it did not rest on personal property as well as on real estate. It was true that the States were at liberty to assume their respective quotas; and in that case the tax, being assessed and collected under State laws, would probably be imposed on personal property as well as real estate. But Congress could not take it for granted that the States would all assume the tax; and, where they did not, it was to be collected by federal machinery and assessed on real estate.

A second and more serious objection to the tax was its apportionment among the States on the basis of population, as required by the Constitution. The distribution of population was far from corresponding to that of wealth. The disparity was much greater in 1861 than it had been in 1816, when the last direct tax had been assessed. There had been a concentration of wealth and capital in the Eastern States, a rapid growth of population in the Western. Hence the representatives from the West were especially active in opposing the direct tax.*

But, if the direct tax was to be rejected, some substitute for it must be found; and many members began to express a preference for an income tax. The principal argument which the Committee of Ways and Means urged against making any such change was the need of prompt action. But this did not

*In the course of the debate statistics were presented to show the inequalities in the assessment which would result from this method of apportionment. The quota of Illinois, for instance, would, it was urged, require a tax of nearly 6 per cent. on the valuation of real estate, while in Massachusetts the rate would be only 2.6 per cent.

seem to the House a sufficient reason for accepting the bill as it stood. "There is no stress of weather," said Mr. Colfax, "which can induce me to vote for the bill as it now stands. I cannot go home, and tell my constituents that I voted for a bill that would allow a man, a millionaire, who has put his entire property into stock, to be exempt from taxation, while a farmer who lives by his side must pay a tax." So the committee, acting on a vote of instruction passed by the House, revised the bill so as to reduce the direct tax from \$30,000,000 to \$20,000,000, and impose an income tax of 3 per cent. on all income over \$600. The bill in this form was accepted by the House, and passed at once.*

In the mean time an income tax had also been proposed in the Senate. There the question came up in connection with the tariff bill, which had passed the House, July 18. In the Senate the Committee of Finance, to whom this bill had been referred, reported it with a substitute which aimed to make the tariff duties more productive of revenue. Mr. Simmons, chairman of the committee, thought that, in addition to this revenue from the tariff, \$20,000,000 should be raised by a tax on incomes. He therefore offered an amendment, which the Senate readily accepted, imposing a tax of 5 per cent. on income over \$1,000. There was but little discussion; but it is evident from what was said that the Senate hoped by this action to be able to dispense with the direct tax which had been proposed in the House, the majority of senators preferring an income tax to a property tax which must be apportioned on the basis of population.† The amendment was adopted on the same day that the House passed the internal revenue bill containing the income tax section.

The form which these measures finally assumed in the act of August 5 was, as usual, determined by the Committee of Conference appointed by the two branches of Congress. The direct tax of \$20,000,000 proposed by the House was retained; and, as for the income tax, the 3 per cent. rate was adopted with an exemption of \$800.

* July 29, 1861, *Congressional Globe*, p. 331.

† Remarks of Mr. Fessenden, *Congressional Globe*, p. 255; and of Mr. Simmons, p. 313.

Thus it appears to have been opposition to the direct tax which led to the adoption of an income tax at this particular time. This is not saying that it might not have been adopted later, even if the Constitution had not required the apportionment of direct taxes on the basis of population. As it was, however, this requirement proved to be a serious objection to the taxes on real estate or other property; and the income tax was about the only other way of levying directly a tax on the wealth or financial resources of each citizen.

The act of 1861 may be said to have committed the country to the policy of taxing incomes; but no income tax was in fact assessed under that law. According to the terms of the act the tax was to be assessed on the income of 1861, and was payable on or before the 30th of June, 1862. But this legislation was regarded as essentially provisional. Congress was to meet again in December, seven months before any revenue from the income tax could be received. It was to be expected that at this next session the act would be reconsidered, and perhaps undergo important modifications; and the Secretary of the Treasury, therefore, took no steps for the enforcement of the income tax, but awaited the further action of Congress. In his annual report he commended the "prudent forecast which induced Congress to postpone to another year the necessity of taking steps for the practical enforcement of the law," thus affording "happily the opportunity of revision and modification." He doubted the advisability of enforcing the income tax at all.

The Secretary is acquainted with no statistics which afford the means of a satisfactory estimate of the amount likely to be realized from the income tax. Considering, however, how large a proportion of incomes after the deductions sanctioned by law will fall within the exemption limit of \$800 a year, and considering also what numerous questions will certainly perplex its assessment and collection, he respectfully submits whether the probable revenue affords a sufficient reason for putting in operation, at great cost, the machinery of the act, with a view, should the States assume the direct tax, to the collection of the income tax alone.

The Secretary favored an increase of the direct tax to the sum originally proposed,—namely, \$30,000,000,—and proposed

to raise \$50,000,000 by internal taxation and without resorting to an income tax. He was aware, he said, that the sum was large; but he felt that he "must not shrink from a plain statement of the actual necessities of the situation."

This report was presented on the 9th of December, 1861. On March 12, 1862, the Committee of Ways and Means reported an internal revenue bill which, it was estimated, would produce \$164,000,000 annually, or more than three times the amount which the Secretary had apologetically asked for. The country was beginning to realize what the war meant. The bill imposed a tax of 3 per cent. on incomes above \$600, from which the committee expected to obtain \$5,000,000 of the above revenue. Mr. Morrill, in reporting the measure, said:—

The income duty is one perhaps of the least defensible that, on the whole, the Committee of Ways and Means concluded to retain or report. The objection to it is that nearly all persons will have been already once taxed upon the sources from which this income is derived. There are few persons in the country who have any fixed incomes for a term of years. The income tax is an inquisitorial one at best; but upon looking at the considerable class of State officers, and the many thousands who are employed on a fixed salary, many of whom would not contribute a penny unless called upon through this tax, it has been thought best not to wholly abandon it. Ought not men, too, with large incomes to pay more in proportion to what they have than those with limited means who live by the work of their hands or that of their families?*

But, if Mr. Morrill anticipated any considerable opposition to the tax, he was happily disappointed. No strong objection seems to have been made to it in any quarter. Congress had made up its mind that the proposed revenue must be raised. The income tax was but one item, and by no means the most important one, among the large number which made up this extensive and complicated revenue measure. If there were members who, like Mr. Morrill, regarded it as the least defensible of the taxes proposed, no one seemed to think it worth while to move to strike it out or was ready to suggest anything else in its place. In fact, notwithstanding the number of times the income tax was subsequently re-enacted or

* *Congressional Globe*, 37th Congress, 2d Session, p. 1196.

amended, the main question whether there should be such a tax at all was not seriously considered again until 1870. Up to that year the country seemed perfectly willing to accept this form of taxation as a part of the burden necessitated by the war.

II.

Until 1870, then, the questions discussed were mainly those of detail; and prominent among them was the question of the rate to be levied. The bill of March, 1862, retained the uniform 3 per cent. rate which had been adopted in the act of 1861. In the House no change was proposed. The higher rates of the act of 1862 originated in the Senate. There Mr. Fessenden, chairman of the Committee of Finance, moved an amendment retaining the 3 per cent. rate for incomes not over \$10,000, and making the rate 5 per cent. if the income exceeded \$10,000, and $7\frac{1}{2}$ per cent. if it exceeded \$50,000. These rates were to be assessed on the excess of income over \$600. Mr. Chandler, of Michigan, made some objections to the proposed change; but no one supported him, and the amendment was adopted without much debate.

The Senate had voted to strike out the direct tax which was a feature of the House bill, and it is not improbable that the above amendment was adopted with a view to supplying the revenue which the direct tax would have yielded. The House was strongly in favor of the latter tax. This disagreement between the two branches of Congress, which threatened to prove disastrous to the bill, was finally settled in the Committee of Conference. The direct tax was not struck out, but its assessment was suspended for two years; and this suspension proved to be final, for two years later the tax was repealed. It had been driven from the field by its rival, the income tax. As for the progressive features introduced in the income tax by the Senate, they probably do not indicate any disposition to favor the principle of progression for its own sake, but resulted almost inevitably from increasing the rates. To impose a tax of $7\frac{1}{2}$ per cent. on all income above \$600 would probably have been regarded as an excessive and unjust

burden on the smaller incomes. Either the limit of exemption must be raised or lower rates must be adopted at first, and the higher rate applied only after the income mounted to a higher figure.

The Committee of Conference modified the Senate amendment by striking out the $7\frac{1}{2}$ per cent. rate for income over \$50,000. It retained the 5 per cent. rate for income above \$10,000, and the 3 per cent. rate below that point. Under this act, which was signed July 1, 1862, the income tax first went into operation. The income tax sections of the act of 1861 had never been enforced, and were now repealed.

The next revision of the income tax took place in 1864, forming a part of the act of June 30. This act was the most important revenue measure of the war, and was expected to produce a revenue of about \$250,000,000. In its main features, however, it followed the act of 1862, but with modifications in detail and a general increase in rates. As for the income tax, the bill as introduced by the Committee of Ways and Means did away with the differential rates, and proposed to assess a tax of 5 per cent. on all incomes, with an exemption, as before, of \$600. But the House voted to make the rate $7\frac{1}{2}$ per cent. on income over \$10,000, and 10 per cent. on that over \$25,000. There was a good deal of discussion before the vote was taken. Many members were opposed to the progressive principle. They condemned it as being virtually "a confiscation of property because one man happens to have a little more than another,"* as punishing men because they are rich, and the like.† The defenders of progression claimed that it was justifiable on the same principle as a tax on luxuries, that it was simply a means of making the rich contribute their due proportion to the expenses of the war, offsetting the disproportionate share of indirect taxes paid by the lower and middle classes.

The question was again discussed in the Senate, where the Committee of Finance proposed to strike out the 10 per cent. rate on income over \$25,000. Mr. Sumner thought this would

* Remarks of Mr. Morrill, *Congressional Globe*, p. 1876.

† Remarks of Mr. Stevens, *Ibid.*

be a departure from correct principles, and cited Adam Smith and Say in support of progressive taxation. The Senate at first accepted the proposed change. Later, however, it voted to restore the 10 per cent. rate, apply it to income over \$10,000, and at the same time apply the 7½ per cent. rate to income between \$5,000 and \$10,000. One of the senators wanted to know on what principle a larger tax was imposed on an increased income. Mr. Grimes, of Iowa, replied: "As to the practice, we have already established that by a very decisive vote. As to the principle on which it is based, I will refer the senator from Missouri [Mr. Henderson] to the senator from Massachusetts [Mr. Sumner] and the array of authorities which he read to us the other day from Say and other political economists, showing us that this was the principle on which all income taxes ought to be assessed; and it is not for me to controvert the authorities which the senator from Massachusetts exhibited here to so great an extent, and it seems to me that they have made such an impression on the minds of the senators that we have reversed the decision made at that time, and decided exactly the contrary to-day."*

The tone of these remarks would lead us to question the senator's sincerity in suggesting this explanation of the Senate's reversal of its previous decision. It is to be noted that, in the interval between the first vote on this question and the second, Mr. Grimes had moved to postpone indefinitely the direct tax, which, according to the House bill, was to be assessed in 1865; and this motion was carried. The list of senators who voted in the affirmative corresponds pretty closely to the list of those who afterwards voted for the higher rates on incomes.† Apparently, a group of senators, mainly from the Western States, made up their minds that the

* *Congressional Globe*, 1st Session, 38th Congress, p. 2760.

† Of the twenty-one who had voted against the direct tax, only four—Henderson, of Missouri, Howe, of Wisconsin, Powell, of Kentucky, and Richardson, of Illinois—voted against the higher income-tax rates. Of the sixteen who had voted in favor of the direct tax, only five—Conness, of California, Harris and Morgan, of New York, Sumner, of Massachusetts, and Ten Eyck, of New Jersey—voted in favor of the higher rates. Of these five, all but one had voted against the higher rates on the first vote taken before the vote which struck out the direct tax.

direct tax must go; and, that tax being disposed of, the Senate, in order to make good the revenue, consented to increase the income tax.

When the bill assumed its final form in the Committee of Conference, the income tax was changed so as to 'make the 10 per cent. rate begin at \$10,000,—a lower point than either House or Senate had selected. This seems a singular step to be taken by a committee which is expected to compromise the differences between the two branches of Congress; but it excited no protest.

Before the income tax sections of the act of 1864 went into operation, they were amended by the act of March 3, 1865. Under this act the rates reached the highest point in the history of the tax. The $7\frac{1}{2}$ per cent. rate was abolished, and the 10 per cent. rate was applied to all income over \$5,000, the rate below that point being, as before, 5 per cent. This change aroused very little debate in either branch of Congress.

By 1866 the finances of the government were in a condition to allow some reduction of taxation; and a bill was introduced which was expected to secure relief to the extent of \$75,000,000. As regards the income tax, it was proposed to return to a uniform rate, 5 per cent., and raise the exemption to \$1,000. "In a republican form of government," said Mr. Morrill, in introducing the bill, "the true theory is to make no distinctions as to persons in the rate of taxation." But the House, after some debate, voted to continue the 10 per cent. rate on income over \$5,000. The Senate, however, favored postponing action on the income tax until the next session, which would open before the proposed changes could go into operation. The House agreed to this, and the matter went over. In the next session the House voted against a 10 per cent. rate by a majority as strong as that which had favored it in the previous session. The Senate made no effort to continue the higher rate; and thus the act of March 2, 1867, introduced a uniform 5 per cent. rate with an exemption of \$1,000. No further changes were made in the income tax until 1870.

In the early history of the tax there were some other dis-

tinctions in the rates besides those based on the amount of the income. One of these was in regard to income consisting of interest on United States securities. The policy at first was to tax it at a lower rate. The object was to encourage loans to the government. The Senate introduced this feature in the act of 1861, under which interest on such securities was to be taxed $1\frac{1}{2}$ instead of 3 per cent. The act of 1862 observed the same distinction, taxing interest on bonds at $2\frac{1}{4}$ per cent., while the rates for other forms of income were 3 and 5 per cent. The act of 1864 did away with this distinction; and thereafter the interest on government securities was subject to the same tax as other forms of income. *among - 412*

Another distinction observed in this earlier period was in regard to the income from property in the United States owned by citizens residing abroad. This was taxed at a higher rate with the idea, apparently, that these citizens by spending their incomes in a foreign country were evading the taxes on consumption which our laws imposed. Under the act of 1861 such income was to be taxed 5 per cent. The act of 1862 retained the five per cent. rate, which, however, was a discrimination against this class of citizens only when their incomes were under \$10,000, since citizens at home were likewise taxed 5 per cent. on income above that amount. This distinction was also discontinued under the act of 1864.

In addition to the regular income tax a special tax was assessed on the income of 1863 by a joint resolution of Congress passed July 4, 1864, in order to provide for the bounties required under the recent enrolment act. The rate was 5 per cent. on all income over \$600. This made the total tax assessed in the end, on the income of 1863, 8 per cent. on income between \$600 and \$10,000 and 10 per cent. on income over \$10,000. The special tax was assessed Oct. 1, 1864.

III.

H The legislation we have been considering made express provision for the taxation of certain classes of dividends and interest payments. The act of 1862 imposed a tax of 3 per cent. on the interest or dividends paid by railroad corpora-

tions, and a like tax on the dividends of all banks, trust companies, savings institutions, or insurance companies, and on all sums added to their surplus or contingent funds. This tax was to be deducted from the interest or dividends, and paid over to the tax collector by the officers of the company or corporation. Dividends and interest thus assessed were not subject to further taxation as income. This tax, therefore, was essentially a part of the income tax, and was so regarded, being in effect an assessment on the income of the stockholder or bondholder, who received his interest or dividends diminished by the amount of the tax. Theoretically, it was the same thing in the end as if the tax had been assessed directly on his income and collected from him; but, in practice, it was much easier and simpler to collect from the corporations than from the individual stockholders and bondholders, and therefore Congress availed itself of the well-recognized advantages of taxing income at its source.* At the same time certain inconsistencies resulted from adopting this course.

For, in the first place, the personal income tax, as we have seen, imposed a higher rate on the larger incomes; but this distinction could not well be observed in taxing dividends and interest. Yet there was a certain degree of injustice in not observing it. Under the act of 1862 the result was that, while an income of over \$10,000 derived, say, from some private business, from professional fees, or a salary, was taxed 5 per cent., an income of the same amount, consisting of interest and dividends received from railroads or banks, was taxed only 3 per cent. By the act of 1864 the tax on interest and dividends was raised to 5 per cent., thus corresponding again to the lowest rate assessed on personal incomes; but, as 10 per

* We do not mean to imply, however, that this tax was in the first instance resorted to with the idea of securing a more efficient assessment of this form of income. On the contrary, the indications are that at first this tax was imposed simply because the interest and dividends of railroads and banks were regarded as convenient objects of taxation; but, to avoid double taxation, it was found necessary to exempt them from the personal income tax. Later these two taxes came to be regarded as two subdivisions of a general income tax. Thus in the act of 1862 the provisions as to interest and dividends are given under a separate title, and precede those in regard to personal income; but in the act of 1864 the order is reversed, and all these sections form one group under the general title of "Income."

cent. was now assessed on personal income in excess of \$5,000, the disparity between the two methods of taxation was as marked as before. It did not cease until under the act of 1867 a uniform rate was adopted for all forms of income of whatever amount.

It was also considered impracticable, as regards the taxation of interest and dividends, to apply the principle of exempting a certain amount. The tax-payer whose income consisted entirely of interest and dividends was thereby deprived of a form of relief which other tax-payers enjoyed. This inconsistency did not escape the notice of Congress. There were members who were fond of denouncing a system which operated injuriously upon "a class of persons composed almost exclusively of widows and orphans"; and propositions were made to have the tax refunded to those receiving the interest and dividends, if their total income did not exceed the amount exempted from the personal income tax. But such proposals, although admitted to be just in principle, were rejected as impracticable.*

The method of taxing at the source was also applied to the salaries paid by the government,—that is, the tax was simply deducted from salaries as they were paid; and, as in the case of interest and dividends, the rate was uniform, corresponding to the lowest rate on other forms of income. Such salaries, therefore, were taxed at 3 per cent. until the act of 1864 went in force, and after that at 5 per cent. It is not apparent why there should have been any difficulty in introducing gradations in the rates in this case. But it was practically a matter of no great importance, as very few salaries paid by the government in those days exceeded \$5,000. A rather tardy attempt was made to remove this defect in the law in 1866, when, on motion of Mr. Garfield, an amendment was passed, making the rate 10 per cent. when the salary exceeded \$5,000; but before the time came for the enforcement of this provision, the act of 1867 was passed, which, as already stated, introduced the uniform 5 per cent. rate for all forms of income.

* See *Congressional Globe*, 1st Session, 39th Congress, p. 2786; 2d Session, 41st Congress, p. 5103.

IV.

In the administration of an income tax embarrassing questions sometimes present themselves in regard to the correct conception or definition of income. By the act of 1861 the income to be taxed was defined, in general terms, as that "derived from any kind of property, or from any profession, trade, employment, or vocation carried on in the United States or elsewhere, or from any other source whatever." This definition seems pretty inclusive, but would probably not have been of much practical assistance in the administration of the tax. But the act was not intended to be very explicit, being framed with the idea of leaving matters of detail to be settled by rulings of the Treasury Department.*

The act of 1862 amplified this definition somewhat without greatly improving it. The tax was to be levied upon "the annual gains, profits, or income of every person residing in the United States, whether derived from any kind of property, rents, interest, dividends, salaries, or from any profession, trade, employment, or vocation carried on in the United States or elsewhere, or from any other source whatever except as hereinafter mentioned."† The last words evidently refer to certain deductions which the act permitted. Thus we find that "all other national, state, and local taxes lawfully assessed upon the property, or other sources of income," were to be deducted; and, also, all salaries and payments from the United States, and those dividends and interest payments which, as we have seen, were taxed by a distinct method. Of course, these last deductions were allowed simply to guard against double taxation; and this was apparently the object of the provision — found only in this act — that "the income derived from advertisements, or from any article manufactured upon which specific, stamp, or *ad valorem* duties shall have been directly assessed or paid, shall be deducted."‡

* "This bill provides that all the details, the mode of assessing the tax, what shall be assessed and what shall be deducted, shall be prescribed by the Secretary of the Treasury." Speech of Mr. Simmons, *Congressional Globe*, 1st Session, 37th Congress, p. 315.

† Act of July 1, 1862, section 90.

‡ The clause would seem to cover pretty much all income derived from manufacturing; for the articles manufactured and not taxed in those days were few

The legislation of 1864 and subsequent years was more explicit as to what should be included and what deducted in estimating taxable income. We find that the income was to include the following items:—

1. "Interest received or accrued upon all notes, bonds, mortgages, or other forms of indebtedness bearing interest, whether paid or not, if good and collectible, less the interest which has become due [from the tax-payer] during the year."*

2. "Profits realized from sales of real estate purchased within the year or within two years previous to the year for which the income is estimated."† There is some difficulty in deciding how to deal with these profits on real estate transactions. Evidently, they are a form of income; but should they always be included in the income of the year in which the real estate is sold? Under the act of 1862, which was silent on this point, the Commissioner of Internal Revenue ruled that, whenever a man sold an estate for more than he paid for it, the difference must be included in the income for the year in which the sale took place, no matter how long the estate had been in his possession. The act of 1864 provided that such profits should be included only when the real estate had been purchased within the year for which the income was estimated; but in the act of 1867, from which we have quoted, the rule was extended so as to cover purchases within the two years previous. The limit selected seems to be wholly arbitrary, and perhaps it could not well be otherwise. But why should the profits from the sale of an estate which has been held three years and a day be exempt from the tax, while, if the estate had been sold two days sooner, they would have been taxable? This inconsistency in the law did not escape the notice of those who in 1870 were urging every possible argument against the income tax.‡ According to the act of

and far between. If the intention was to avoid double taxation, the assumption must have been that a tax on manufactures rested on producers rather than consumers. This provision, however, never had to be enforced; for it was omitted in the amendatory act of March 3, 1863. The provision in reference to advertisements, however, remained law until the act of 1864 was passed.

* Act of March 2, 1867, section 13. In substance, the same provision was contained in the act of 1864, section 117.

† Act of 1867, section 13.

‡ *Congressional Globe*, 2d session, 41st Congress, p. 4717.

1864 the taxable income was also to include "all income or gains derived from the purchase and sale of stocks or other property, real or personal," to which the act of 1865 added the words "or live stock"; but this provision was not retained in the act of 1867.

3. The income was to include "the amount of sales of live stock, sugar, wool, butter, cheese, pork, beef, mutton, or other meats, hay and grain, fruits, vegetables, or other productions, being the growth or produce of the estate of [the tax-payer], but not including any portion thereof consumed directly by the family."* It is not clear why the amount of these products consumed by the family should have been exempted. There seems to be no better reason for it, in principle, than there would be for allowing the receiver of a salary to deduct the amount paid for his board.

As regards this method of estimating agricultural income, the criticism of the Commissioner of Internal Revenue, Mr. J. J. Lewis, is of interest: "The best test of the yearly income from real estate is its rental value. A rule requiring such income to be assessed on that value would be conveniently practicable, and would obviate the necessity of the vexatious inquisition now required in ascertaining the comparative value of live stock at different periods and the amount of butter, beef, cheese, etc., sold or on hand. Such estimates must needs be very unequal, and the returns incomplete."†

4. The income was to include "the share of any person of the gains or profits, whether divided or not, of all companies or partnerships, but not including the amount received from any corporations whose officers, as authorized by law, withhold and pay as taxes a per centum of the dividends made, and of interest or coupons paid by such corporations."‡

*The language quoted is that of the act of 1870; but substantially the same provision was introduced in the act of 1864. It underwent verbal changes in every subsequent act until it finally took the form given above. Originally, the enumeration even included "the increased value of live stock, whether sold or on hand," so that not even the year's growth of a calf was to be ignored in estimating the farmer's income.

† *Internal Revenue Reports*, 1864, House Executive Documents, 1864-65, vol. vii.

‡ Act of 1870, section 7. But essentially the same provision is found in all previous acts as far back as 1864.

5. Finally, the income was to include "all other gains, profits, and income drawn from any source whatever, except the rental value of the homestead." * This brings us to the deductions and exemptions provided for in these acts.

First there was the exemption of a minimum, which is a feature of nearly all income tax legislation, for reasons too well known to be repeated here. Under the acts of 1862, 1864, and 1865, the amount exempted was \$600, which after the inflation of the currency represented but a trifling income. In 1867 the amount was raised to \$1,000, and in 1870 to \$2,000. The tax was assessed on the amount by which any income exceeded the limit of exemption, and only one such deduction could be made from the aggregate income of all the members of any family consisting of parents and minor children or of husband and wife.

The amount actually paid for the rent of the dwelling-house or estate on which the tax-payer resides was also to be deducted. This provision first appeared in the amendatory act of March 3, 1863. It is not clear why a man should be allowed to deduct the amount paid for the rent of his dwelling any more than the amount paid for clothing. The rule was introduced on the assumption that the term "income" did not include the rental value of a house occupied by the owner,—a point on which the law, however, was silent at that time. The amendment exempting the rent paid for a dwelling was accordingly proposed for the avowed purpose of placing the man who hired a dwelling on the same footing with the man who owned one. The latter, it was said, "does not pay any rent, nor does he account for the rent of his house in his income; and the person who hires and occupies a house should be on the same footing." That seemed reasonable, and the amendment was accordingly adopted. But these two men might just as well have been put on the same footing by requiring the one who owned his dwelling to include its rental value in his income, and not allowing the one who hired a dwelling to deduct the rent paid for it. Later, under the act of 1864, express provision was made for the case of a man

* Act of 1867, section 13.

owning his dwelling, by explicitly excluding its rental value from his income. This time it may fairly have been thought necessary to put the man who owned his dwelling on the same footing with the man who hired one. The act accordingly provided that "the amount paid by any person for the rent of the homestead used or occupied by himself or his family, and the rental value of any homestead used or occupied by any person or by his family, in his own right or in the right of his wife, shall not be included and assessed as a part of his income."* This clause was an amendment introduced by the Senate Committee of Finance. The bill as it came from the House had exempted \$200 of rental value, and allowed a deduction of \$200 for rent. Mr. Fessenden, chairman of the Senate Committee, said that the House proposal could not be carried out "without making a very odious discrimination between town and country. . . . It would impose a burden upon certain men who happened to live in the city from which men living in the country where rents are low, comparatively nothing, would be exempt." A similar proposal was made by the House in 1870, but was again rejected by the Senate.

The policy which the House attempted to introduce was advocated by Commissioner Lewis in his annual report for 1864: "I am unable to see why the man who consumes his income should not be taxed for it as well as the man who saves it; nor why the one who lives in his own house should not be taxed on its rental value as much as if he let it to another, and put the rent in his own purse. If it be deemed right to allow the occupant of his own homestead such a portion of its rental value as would suffice to pay the rent of a moderate dwelling, the excess of the annual value of such homestead above the sum might with justice be taxed. An allowance of three or four hundred dollars might not be unreasonable; and to the same amount the deduction allowed . . . for rent actually paid ought to be fixed, so that owners and renters should enjoy equal privileges under the law."

The same views were held by the Special Revenue Commission of 1865.† This commission recommended that "in

* Act of 1864, section 117.

† House Executive Documents, 1st Session, 39th Congress, No. 17, vol. vii. This

assessing the income tax no allowance whatever be made for house rent, or, at least, that the income allowed to be deducted for rental should not in any case be allowed to exceed three hundred dollars. As the law now stands, rentals of an excessive and unreasonable amount are often deducted; and the gain to the revenue in the city of New York alone, from the repeal of that part of the act authorizing the deduction of rentals, would, in the opinion of the revenue officials, amount to over two millions of dollars per annum."

The other deductions expressly allowed by law were as follows: "the amount actually paid for labor or interest by any person who rents land or hires labor to cultivate land, or who conducts any other business from which income is actually derived";* "the amount paid out for ordinary or usual repairs, provided that no deduction shall be made for any amount paid out for new buildings or permanent improvements or betterments made to increase the value of any property or estate";† "the losses actually sustained during the year arising from fires, shipwrecks, or incurred in trade, and debts ascertained to be worthless, but excluding all estimated depreciation of value";‡ the amount of all national, State, and municipal taxes paid within the year; and "losses within the year on sales of real estate purchased two years previous to the year for which income is estimated." §

V.

The administration of the income tax was under the charge of the Commissioner of Internal Revenue, an office created by the act of 1862; and the assessment and collection of the

commission was appointed under the act of March 3, 1865, to consider and report on the revision of the revenue system. The members were David A. Wells, Stephen Colwell, and S. S. Hayes.

* Act of 1867, section 117. But the same provision in substance was introduced in the act of 1864.

† Act of 1867. In the act of 1864 it was "amount paid out for usual or ordinary repairs, not exceeding the average paid out for such purposes for the preceding five years."

‡ Act of 1867.

§ Act of 1867. This clause was not retained in the act of 1870.

tax devolved upon the assessors and collectors of the internal revenue. The income assessed was that for the calendar year. At first the tax was assessed on or before the 1st of May following, and was due on or before June 30; but under the act of 1867 the assessment was made on or before the 1st of March, and the tax was payable on or before the 30th of April, this change applying to the assessment of 1867.*

The penalty for delay in payment was, at first, an addition of 5 per cent. to the amount of the tax remaining unpaid (act of 1862); then 10 per cent. (act of 1864); and later 5 per cent., with interest at 1 per cent. per month until the tax was paid (act of 1867). The penalty was imposed if the tax remained unpaid for thirty days after it became due, and for ten days after notice and demand thereof by the collector. The collection of the tax could be enforced by levying on the property of the delinquent.

The most serious difficulty in the assessment of an income tax is of course to ascertain the income of the tax-payer. In these acts the main reliance was upon the tax-payer's written declaration, verified or corrected by such information as the assessor might have or such investigation as he might lawfully undertake. We follow the provisions of the act of 1867, noting any important points of difference between that and preceding acts: "All persons" were required "to make and render a list or return . . . of the amount of their income, gains, and profits." This return was "to be verified by the oath or affirmation of the party rendering it."† In case any person neglected or refused to make a return or made a fraudulent return, the assessor was to make out the return "according to the best information" he could obtain, "by the examination of such person or his books or accounts or any other evidence." In these cases of refusal or neglect, 50 per cent. was added to the tax due on the list as made out by the assessor. In case of a fraudulent return, 100 per cent. was added. Moreover, under a general provision of the internal revenue laws, any person convicted in the United

*The reasons for the change are stated in the *Report on Finances for 1864*, p. 70.

†The oath was first required under the act of 1864.

States court of making fraudulent returns might be punished by a fine not exceeding \$1,000 or by imprisonment not exceeding one year or both (act of 1864, section 15). The assistant assessor might also increase the amount of any list or return, if he had reason to believe that it had been understated. The person who made the return might then "exhibit his books and accounts, and be permitted to declare under oath or affirmation the amount of income liable to be assessed; but such oaths and evidence" were not to be "considered as conclusive of the facts, and no deductions claimed in such cases" were to be allowed "until approved by the assistant assessor." There was an appeal from the decision of the assistant assessor to the assessor, whose "decision thereon, unless reversed by the Commissioner of the Internal Revenue," was to be "final."

During the greater part of the time that the income tax was in force it was the custom to publish the incomes of individual tax-payers in the local newspapers. At first, in accordance with the instructions given by the Commissioner of Internal Revenue, all information in regard to individual returns was withheld from the public. But in the absence of any express legislative prohibition of publicity, and under the pressure of newspaper enterprise, the custom was soon established of publishing full lists of tax-payers and their incomes. In support of this practice it was urged that its effect was to increase the assessment and secure more complete returns. But it is a question whether its advantages in this respect were great enough to offset the annoyance and some injury to which it often subjected the tax-payer, and the odium which was attached to the tax in consequence. The practice gave rise to much dissatisfaction and complaint, but was not abolished until prohibited by the act of 1870.

VI.

By the act of 1864 (section 19) the personal income tax was to be levied until and including the year 1870, and no longer. Under this provision the last income assessed would have been that of 1869. It was an oversight, doubtless, that this limitation did not apply to the tax on interest, dividends, and gov-

ernment salaries; but, as the act was passed, the tax on these forms of income was held to be continuous, remaining in force until repealed by Congress.

As the time for the expiration of the personal income tax drew near, the question as to its renewal or continuation was raised. The revenues of the government so far exceeded expenditures that a considerable reduction of taxation was possible; but many believed that the income tax should be retained until certain other taxes, believed to be more objectionable, had been abolished.* In 1870, a bill "to reduce internal taxes," and expected to secure a total reduction of nearly \$34,000,000, was reported to the House by the Committee of Ways and Means.† It continued the income tax indefinitely, retaining the 5 per cent. rate, but raising the exemption to \$1,500. This increase in the exemption would, it was estimated, effect a reduction of \$5,741,105 in the revenue from this tax. The proposal to continue the income tax met with strong opposition. In both the House and the Senate the question was debated at length. The *Globe* contains a long series of speeches in which the arguments both for and against the tax are urged with tedious repetition. Without attempting to follow the debate, we present some of the arguments advanced on each side of the question.

The counts in the indictment of the income tax, if we may so express it, were substantially as follows:—

1. The income tax was inquisitorial. It was "at war with the right of every man to keep private and regulate his business matters." ‡
2. The assessment in different sections was unequal, and the territorial distribution of the tax unjust. It was pointed out that more than

* "So long as a large internal revenue is required by the financial necessities of the government, a portion of that revenue should be collected from the income tax. The reason for this seems apparent and forcible. The tax simply reaches the profits of trade and business and the increased wealth of individuals from investments." Report of Commissioner of Internal Revenue, 1869.

† It removed the taxes on successions and legacies, \$2,434,593; on gross receipts of railroads, insurance companies, etc., \$6,109,617; on sales, except sales of liquor, \$8,197,734; on gas, \$2,116,005; special taxes, to the amount of \$8,197,732; and taxes on carriages, watches, etc.

‡ See some emphatic language by Mr. Kelley, of Pennsylvania, *Congressional Globe*, p. 3994.

half the tax was collected from 20 out of the 235 revenue districts ; that California paid more income tax than the States of Indiana, Iowa, Wisconsin, Kansas, and Nebraska combined ; New Jersey more than this same list of States, with the addition of West Virginia ; that one district in Illinois paid more than all the other thirteen, two districts of Massachusetts about as much as the remaining eight ; that Massachusetts, with 5½ per cent. of the total taxable property of the country, paid over 12½ per cent. of the total income tax, and Illinois, with 6 per cent. of the taxable property, paid only 4½ per cent. of the income tax.

3. The tax was unjust because it rested on a small number of citizens. Out of 40,000,000 people, there were only 272,000 who were subject to it.

4. On the other hand, it was said that the tax was oppressive, because it did not fall upon the wealthy few, but was, in the end, paid by laborers and consumers in the form of lower wages and higher prices.

5. The tax was not honestly collected. "Does any one believe," asked one member, "that there are only 9,464 persons with incomes exceeding the sum of \$5,000? Why, there are that number in New York City alone. Nobody can deny it. Does anybody believe that out of the whole 40,000,000 people in the United States there are only 272,843 who have incomes exceeding \$1,000, that only about half that number have incomes not above \$1,400?"*

6. The tax was "perjury-provoking," — a tax on conscience, offering a premium for dishonesty.

7. It was a "war tax," and to continue it was a breach of "the plighted faith of Congress." The people had been assured by "as solemn a pledge as can be given in a law of Congress" that the tax should expire in 1870.

8. The tax was unconstitutional ; for it was a direct tax, and ought therefore to be apportioned on the basis of population.

9. The income tax laws were inconsistent and unjust in their provisions. The earnings of labor were taxed as severely as income from invested capital.† Again, there was no exemption allowed on incomes consisting of interest and dividends ; and this fact worked injustice to those widows and orphans who were dependent on small incomes of this description.‡

The following were some of the arguments offered in support of the tax :—

1. It was asserted that there "never was so just a tax levied as the income tax." It was "an assessment upon every man according to his

* Remarks of Mr. Sargent, of California, in *Congressional Globe*, p. 4029.

† See remarks of Mr. Garfield, in *Congressional Globe*, p. 4036.

‡ "This tax is not levied alone on those who have more than \$1,000 per annum. I know those who have not \$300 a year who pay an income tax, many of whom are

ability to pay,—according to his annual gains.”* It was the only tax in our system which regarded differences of wealth,—“the only tax which makes any distinction between John Jacob Astor and the poorest drayman in the streets.”†

2. It was “about the only tax which reaches to any extent the large amount of personal property in this country”; for “personal property escapes taxation in the States almost entirely.”‡

3. It was true that the tax was levied on a small number of people. But they were the ones who did not contribute their share of other taxes, of taxes on consumption. Said Senator Sherman, “If you leave your system of taxation to rest solely upon consumption, without any tax upon property or income, you do make an unequal and unjust system.”

4. The income tax was a means, and probably the only means, of assessing the bondholders. The United States bonds were “exempt from all taxes except such income tax as may be levied by the United States upon all income,” the only tax that rests on this class of property, amounting in this country now to more than \$1,000,000,000.”§

5. If there had been a good deal of opposition to the income tax, it did not come from the people as a whole; for the great body of the people were not reached by it in any way. The clamor for the abolition of the tax was a “local and manufactured cry.” It represented “a special interest.”||

widows and orphans. I mean those who have a small amount invested in bank and other stock.” Remarks of Mr. Archer, in the *Congressional Globe*, p. 4033.

* Remarks of Senator Sherman, *Globe*, p. 4714. Senator Sherman was one of the ablest supporters of the tax; and but for him the Senate would probably have thrown out the sections continuing the tax altogether. Most of the arguments given here are found in his remarks, and the language quoted is generally his. Some of the extracts are taken from a speech delivered by him in the next session, when the income tax question was again under consideration. This speech is printed in the Appendix to the *Globe*,—41st Congress, 3d Session,—and has been published in his *Collected Speeches*.

† Mr. Blair, of Michigan, *Globe*, p. 3933.

‡ Mr. Ward, of New York, *Globe*, p. 4027.

§ Senator Sherman, *Globe*, p. 4716.

|| “We all know how liable we are to be controlled by special interests, to the exclusion of the great mass of the people. Special interests besiege our committee rooms, and besiege us as we come to our seats daily, follow us to our rooms and press their special claims upon us.” Mr. Ward, of New York, *Globe*, p. 4027. “The possession of large property and the ability to earn large income necessarily gives to those enjoying that income great influence over public opinion. They speak through the daily press, from high official stations, from great corporations, from cities where wealth accumulates, and with all the advantage of social, personal, and delegated influence. I know the power of this influence.” Senator Sherman, *Ibid.*

6. The income tax was not more inquisitorial than many other features of the internal revenue system, or than personal property taxes in the States. Exceptional cases of hardship and injustice would exist under every tax law.

7. The tax might be the occasion of false statements and perjury, but the fact that rich men commit perjury to avoid the payment of the tax was no reason for excusing them from the payment of it altogether.*

8. The abolition of the income tax was a part of the policy of the protectionists, who "earnestly favor reduction in this and all internal taxes, in order to create a necessity for their onerous and unjust system." †

9. The revenue from the income tax was needed. It could not be abolished unless other taxes far more objectionable and oppressive were to be retained.

It was not expected, probably, that the weight of any of these arguments on the merits of the question would seriously affect the result. At any rate, an analysis of the vote leads to the conclusion that the proportion of the tax paid by a particular section of country was usually the dominant consideration with members from that section. The division was not on party lines, although it so happens that in the Senate all the Democrats went on record against the tax; but so, too, did many of the Republicans.

The House voted by a strong majority to retain the tax, having first reduced the rate to 3 per cent. and raised the exemption to \$2,000. The Senate was more evenly divided on this question; and there the income tax sections of the bill underwent many vicissitudes of fortune before their fate was finally decided. The Committee of Finance, of which Mr. Sherman was chairman, reported these sections in the form adopted by the House. The opposition in the Senate was immediately made manifest. Mr. Conkling wanted to take a vote at once on striking out the income tax. Mr. Sherman reminded the Senate that, if that tax was stricken out, they would have to restore some other taxes which it was proposed by this bill to repeal. It was, he insisted, simply "an alternative between this and some other form of tax." After some debate the vote was taken, and the income tax was stricken

* Mr. Blair, of Michigan, *Globe*, p. 3993.

† Mr. Wilson, of Minnesota, *Globe*, p. 4023.

out by a vote of 34 to 23. This threatened a reduction in the revenue of \$17,700,000, which, with the reduction of \$74,000,000 already provided for in the bill, would, Mr. Sherman declared, result in a deficit. How should this deficit be made good? There were senators who expressed themselves in favor of retaining the existing taxes on tea, coffee, and sugar, which, as the bill then stood, were to be reduced; others thought it was possible to abolish the income tax, and still make all the other proposed reductions; and, finally, the question was referred to the Committee of Finance for reconsideration.

In behalf of the committee Mr. Sherman reported that they accepted the decision of the Senate in regard to the income tax as final, and would make no further effort to continue it; but, to offset the loss of revenue, they proposed to restore the existing duties on sugar and the tax on gross receipts. The Senate was not disposed to sustain the committee in this action, and voted at first to make the proposed reductions in the sugar duties and abolish the tax on gross receipts; but, on reconsideration, this decision was reversed as regards the sugar duties.

These votes had all been taken in Committee of the Whole. When the Senate, sitting in ordinary session, came to review the bill, one or two senators who had voted against the income tax declared themselves now convinced of the necessity of retaining it; and before the main question was put Senator Wilson, with the intention, probably, of making the measure more acceptable, moved to reduce the rate to $2\frac{1}{2}$ per cent. and limit the duration of the tax to two years. But this motion was voted down, and the Senate then concurred in the action of the Committee of the Whole striking out the income tax. This was the second vote on the question, and stood 26 to 22. Mr. Sherman now moved to restore the tax on gross receipts. He did not believe that "there were many taxes in the tax list worse than the tax on gross receipts. But," he said, "we cannot repeal all the taxes proposed to be repealed." The motion was lost by a tie vote, 25 to 25. The result of this vote seems to have turned the tide in favor of the income tax. Two or three senators had voted against the income tax with the expectation that the tax on gross receipts would be restored;

but, since the Senate had voted to dispense with the latter tax, it was necessary, they believed, to restore the former. A motion was accordingly made to reconsider, and was carried by a vote of 26 to 25. Mr. Wilson again offered the amendment mentioned above, which was now accepted; and the income tax sections thus amended were restored to the bill by a vote of 26 to 22,—the third vote on the tax. Even then the enemies of the tax rallied their forces, and all but succeeded in carrying their point. They managed after a good deal of parliamentary manœuvring to bring up the question again on a motion to strike out. The motion was lost, but only by a tie vote, 26 to 26,—this being the fourth vote on the income tax.

The friends of the tax had won after a hard struggle, but it was a rather barren victory. The rate had been reduced to $2\frac{1}{2}$ per cent., the exemption raised to \$2,000, and the tax, thus curtailed, was to expire in two years. In the following sessions of Congress no one seems to have had the hardihood to propose to prolong its existence beyond that period.

The enemies of the tax, however, thought it worth their while to attempt to deprive it of even this short lease of life. In the next session of Congress a bill repealing the income tax sections of the recent act was introduced in the Senate, debated at some length, passed by a vote of 26 to 25, and sent to the House. The House at once returned it with the respectful suggestion that the Constitution vested in the House of Representatives the sole power to originate such measures. A similar bill, however, had been introduced in the House by one of its own members, and was easily defeated by a strong majority.

The influence of sectional interests, to which we have referred, is well illustrated by this last vote of the House; for it was taken after the question had been thoroughly discussed on the floors of Congress and by the press throughout the country. Members had had ample time to consider the question, and learn the wishes of their constituents. The vote stood 117 in favor of the tax to 91 against it. The States of California, Connecticut, Massachusetts, New York, New Jersey, Maryland, Pennsylvania, and Rhode Island, which, taken together, contributed about 70 per cent. of the total income tax,

cast 61 votes against the tax, and only 14 in favor of it. The States of Alabama, Arkansas, Indiana, Iowa, Michigan, Nebraska, Mississippi, Missouri, New Hampshire, North Carolina, Tennessee, Texas, Virginia, West Virginia, and Wisconsin, which together contributed less than 11 per cent. of the tax, cast 69 votes in favor of the tax, and only 5 against it. Of the 91 votes against the tax, about 53 represented districts contributing more than \$100,000 each. About 21 represented districts contributing less than \$50,000 each. Of the 117 votes in favor of the tax, only 9 represented districts contributing over \$100,000 of tax; while more than 80 represented districts contributing less than \$50,000.

A word must be added as to the disposition made of the tax on interest, dividends, and United States salaries under the act of 1870. When the question was under discussion in the Senate, it was pointed out that practically this tax had gone into operation seven months later than the tax on personal income. Both taxes had been introduced under the act of July 2, 1862. But it must be borne in mind that the one was assessed annually on the personal income of the previous calendar year, while the other was assessed as the dividends, interest, or salaries subject to it were paid or became due. As the act went into force August 1, income consisting of dividends, etc., was taxed only from that date; but the first assessment of the personal income tax in 1863 covered the entire calendar year 1862. In order, therefore, to equalize the duration of these two taxes, the Senate voted to continue the tax on dividends, interest, etc., until August 1, 1870. This vote was passed under the assumption that the personal income tax was to end in 1870, with the assessment of the income of 1869. But it was afterwards decided, as we know, to continue this tax two years longer at a lower rate; and an attempt was made to provide for a similar extension of the tax on dividends. But, after the act had been passed, it was found to provide that the tax on dividends, interest, and government salaries should be assessed only "during the year 1871." The result was that the 5 per cent. tax on this form of income terminated, as had been intended, August 1, 1870; but the 2½ per cent. tax did not begin until January 1, 1871,

and then lasted only one year, while the $2\frac{1}{2}$ per cent. tax on personal income was assessed two years, covering the income of 1870 and 1871.

VII.

It is to be regretted that we have not more complete statistics and fuller information in regard to the assessment of the income tax. The annual reports of the Commissioner of Internal Revenue give in detail the amount of tax collected in each State and district; but they do not, as a rule, give the amount assessed, even for the entire country, and they contain no statements whatever of the amount of income returned for assessment.

We have, however, estimated as well as we could from the available data the amount of taxable income returned in different years; *i.e.*, the amount of income exclusive of exemptions and deductions. Most of these estimates are based upon the annual collections. They are approximations only; but they must come near enough to the actual returns to show the direction, and roughly the extent of the variations from year to year.*

From the amount of tax collected in 1864 we conclude that the amount of taxable income returned in 1863 could not have been far from \$400,000,000. In 1864 it must have been about \$500,000,000, and in 1865 about \$850,000,000. This remarkable increase may have been in some measure the result of greater efficiency and more experience in the administration of the tax; but it must have been mainly due to an actual increase in money incomes caused by the inflation of the currency.

In 1866 there was a marked falling off in the returns. The aggregate of taxable income for that year was about \$706,000,000. The upward movement of prices came to an end in 1865; and this circumstance must have had an unfavorable effect on the nominal, if not the real, profits of many forms of business enterprise. It may well be, then, that there was, in fact, less income to be assessed in 1866 than there had been

*For our results and the explanation of the method by which we obtained them see Table II., Appendix, p. 462.

the year before. At the same time it is probable that the tendency to evade the tax and make incomplete returns of income was becoming stronger and more generally operative. It could hardly fail to be stimulated by the very high rates introduced under the act of 1865. These rates had the effect, in most cases, of more than doubling the tax to which the same income had been previously subject.* We can readily believe that many persons who stood up squarely to be taxed on their full incomes, while the rate was not above 5 per cent., might resort to some device to evade in part, at least, the burdens which the act of 1865 imposed. It is not difficult to understand why this effect of raising the rates would not be apparent in the first assessment under the act in 1865; for it would naturally be concealed and more than counteracted until the upward movement of prices came to an end.

It may be, too, that the returns of 1866, as compared with those of 1865, show the influence of the war spirit upon the productiveness of the tax. The assessment of 1865 was made just as the war had been brought to a successful termination. The North was rejoicing in the triumph of victory; and there was no period, probably, when the burden of war taxation was more cheerfully met. After a year of peace the people began to feel that such high taxes were no longer necessary. To take one-tenth of a man's income in addition to all the other taxes he was required to pay may then have seemed like an unjustifiable confiscation of property.

After the act of 1867 went into force, a considerable reduction of taxable income would of course result from raising the exemption from \$600 to \$1,000. But the probability is that the falling off which actually took place was somewhat greater than can be accounted for in this way. The amount of taxable income returned in 1867 was about \$548,000,000, which shows a reduction of about \$158,000,000 below the returns of 1866.† The amount of income assessed in 1868

*The effect, for instance, on an income of \$10,000 would be to raise the tax from \$282 to \$720. The increase in rates was most marked upon that portion of income between \$5,000 and \$10,000. Here the rate rose from 3 per cent. to 10 per cent.

†The number of persons assessed in 1867 was 266,135. For each of these the higher exemption would make a reduction of \$400 in taxable income. That

was about \$467,000,000. In 1869 and 1870 the assessments averaged about \$519,000,000, so that, on the whole, there was but a slight reduction while the act of 1867 was in force,—hardly as much as we should have expected in a period of falling prices.

The act of 1870 raised the exemption to \$2,000. This of itself would make another large reduction in the returns of taxable income. But here again, as in 1867, the amount actually returned—about \$320,000,000—shows a reduction greater than the higher exemption would explain, so that other causes must have been operative. The best evidence of this is found in a comparison of the number of persons taxed before and after the act went into operation. In the last assessment, previous to the passage of the act the number of persons returning incomes over \$2,000 was 94,887; but in the next assessment the number fell off to 74,775. (See Table III.)* In other words, nearly 20,000 incomes besides those excluded by the higher exemption disappeared from the assessment rolls after 1870.†

It will be found, too, that the incomes over \$2,800 returned after 1870 were not so many as those over \$3,000 had been before, and that the incomes between \$2,800 and \$12,000 were not so many as those between \$3,000 and \$11,000 had been in previous returns.‡

would account for \$106,000,000 of the total reduction. There would also be the loss caused by the entire exemption of all incomes between \$600 and \$1,000. We find that in 1867 the number of persons assessed was less by 194,035 than it had been in 1866. If those who thus disappeared from the assessment rolls had on the average an income of \$866, the total reduction would be fully explained; but \$866 is rather too high to represent the average of incomes between \$600 and \$1,000. The inference is that there must have been some loss of income besides that which legitimately resulted from raising the exemption; but, if we may assume that the average for incomes between \$600 and \$1,000 was not over \$800 nor under \$700, we are justified in concluding that the amount of reduction not covered by the higher exemption could hardly have exceeded \$25,000,000, and may have been as low as \$15,000,000.

* Appendix, p. 494.

† Many of these incomes may not have been much above the limit, and may have escaped taxation simply because the tax had been so reduced that the assessors could not afford to take any great pains to secure it. For instance, an income of \$2,100, which had previously been subject to a tax of \$55, would now, if assessed, contribute only \$2.50.

‡ It is not possible to ascertain from the published statistics exactly how much of the reduction in taxable income, under the act of 1870, remains unex-

We find, then, that the returns of taxable income fell off from \$850,000,000 in 1865 to \$320,000,000 in 1871 and 1872, and that, while a portion of this reduction was the result of raising the exemption, a considerable amount must have been due to other causes. It is noticeable, too, that the reduction was not constant or uniformly distributed throughout the period, but took place principally in the years 1866, 1867, and 1870. In 1866 there was a reduction of nearly \$150,000,000 without any change in the exemption. In 1867 there was a further reduction of about \$160,000,000, partially explained by a higher exemption; and in 1870 another reduction of \$220,000,000, again partially explained by a higher exemption.

The statistics at our disposal appear to justify the inference that from \$290,000,000 to \$330,000,000 of the total reduction in this period was the legitimate result of raising the exemption, and that from \$200,000,000 to \$240,000,000 must be explained by an actual reduction of incomes, by increasing evasion of the tax, or by both of these causes. The period was one of falling prices, which would of course tend to produce a reduction of income. At the same time the tax was becoming more and more unpopular,—at least among those who were required to pay it. As a war tax, it had been accepted with comparative cheerfulness; but, under the prospect that it might become a permanent peace burden, the tax-payers became uneasy. This feeling was naturally intensified by the renewal of the tax in 1870, after the limit set to its duration in previous legislation had expired. Raising the exemption to \$2,000 did not, probably, make the tax any more acceptable to those whose incomes were still subject to it. Whether with good reason or not, they regarded the high exemption as an unjustifiable discrimination which savored of class legislation. All this would make the tax-payers more ready to compromise with conscience when called upon to state their incomes. Furthermore, the disposition to evade the tax may have been rendered more effective by the changes in the direction of leni-

plained by the higher exemption; but, if we may assume that the average of incomes between \$1,000 and \$2,000 was not less than \$1,400 nor more than \$1,500, it is safe to conclude that the unexplained reduction must have been between \$35,000,000 and \$50,000,000.

ency which, under the act of 1870, were introduced in the method of assessment. It had previously been the practice, as has been stated, to publish the returns of income in the local newspapers; and the law had required declarations from all persons of lawful age. It is not to be supposed that this requirement was enforced to the letter; but it gave the assessors the right to demand a declaration from all such persons. Under the act of 1870, however, the declaration could only be required of those whose incomes exceeded \$2,000; and the publication of individual incomes was forbidden. These changes were doubtless concessions to the feeling against the tax, and may have rendered evasion easier.

Reference has already been made to the exceptional character of the assessment of 1868. If we compare the number of persons assessed while the act of 1867 was in force, we can hardly fail to notice further indications of abnormal disturbances in that assessment. (See Table III.) The period, as a whole, shows a slow increase in the number taxed; * but in 1868 the number is less by 11,500 than in the year before, and less by 22,000 than in the year after. The effect is seen in the amount of tax assessed, which is less by \$4,000,000 than it had been the year before. The corresponding difference in the returns of taxable income was \$80,000,000.

This was the last assessment under President Johnson's administration, and in all probability simply indicates the bad results of changes made in the list of assessors and collectors. There are some interesting remarks and statistics bearing on this point in the reports of Commissioner Rollins. The following extract is from the Internal Revenue Report for 1867: p. "The number of changes which have occurred during the last fiscal year in the *personnel* of the service exceeds that of any year preceding, and, so far as relates to assessors and collectors, may be conveniently presented in tabular form:—

* This increase is confined mainly to the lowest class. If we leave the year 1868 out of consideration, the figures for the other classes are remarkably uniform. The decrease in 1868 shows itself to some extent in all classes except the fourth. In that, rather strangely, the number is considerably higher than for any other year. See Table III., Appendix, p. 494.

No. of changes in each office.	COLLECTORS.		ASSESSORS.	
	No. of districts in which changes occur.	No. of persons discharging duties of office at different times during the year.	No. of districts.	No. of persons discharging duties, etc.
1	38	76	32	64
2	14	42	32	96
3	60	240	50	200
4	1	5	2	10
5	1	6	—	—
	114	369	116	370

Thus it will be seen that in 114 districts 369 persons served as collectors, and in 116 districts 370 persons discharged the duties of assessors. The great number of changes in several of the districts arose from the rejection by the Senate of the nominees of the President." Again, in the Report for 1868 (p. xviii), the Commissioner speaks of "the antagonism between the legislative and executive departments which has so sadly damaged the service of the past two years." The new men thus introduced into office were inexperienced, if not otherwise incompetent; and they must have made this assessment with the consciousness that in all probability they would not be retained in office long enough to make another.

VIII.

The chief requisites of a tax in time of war are productiveness and promptness. A war tax must, first of all, be such that, notwithstanding the disturbed industrial conditions which may prevail, it will yield a considerable revenue very soon after its adoption. The questions of justice in its distribution or incidence, and of freedom from vexatious features in its assessment, cannot be ignored; but their presence

is not felt as in times of peace, when the system of taxation is expected to be more or less permanent.

The tax on incomes was one of the most productive of our war taxes. During the ten years that it was assessed it yielded \$376,000,000, which was more than one-fifth of the total internal revenue for that period. In 1865 nearly 29 per cent. of the internal revenue was derived from this source. In the matter of promptness the record is not so favorable. The internal revenue system went into operation September 1, 1862. The tax on dividends, interest, and salaries began to bring in revenue at once; but the amount was small, and only \$2,000,000 had been collected from this source up to July, 1863. Under the 5 per cent. rate imposed by the act of 1864 this tax yielded from \$8,000,000 to \$9,000,000 annually. The returns from the personal income tax did not begin to come in until about July 1, 1863. But nearly all of the first assessment, amounting to about \$14,000,000, must have been collected before December 1, 1863. Up to that date the total collections of internal revenue amounted to nearly \$75,000,000. It is safe to say that at least one-fourth of this amount consisted of the two forms of income tax.

That these sources of revenue were not more promptly productive was not the result of difficulties inherent in the nature of an income tax. The delay was, to a large extent, needless. It was doubtless due, in part, to the entire novelty of this form of taxation in the United States, and in part to the somewhat timid and dilatory policy of the Secretary of the Treasury. If the income tax provided for in the act of 1861 had been assessed, it would have brought into the treasury before December, 1862, something like \$8,000,000 or \$9,000,000,—not a large sum, to be sure, but it would have come in at a time when revenue was sorely needed. Moreover, when the tax went into operation under the act of July, 1862, the dates fixed upon for its assessment and collection were needlessly remote. There was no apparent necessity for waiting until April 30, 1863, before making the assessment, and until June 30 before beginning with the collection.

Such delay would doubtless be avoided if similar conditions of urgency should ever prevail again. An income tax could

be assessed on the income of the year preceding its enactment without more delay than is required for organizing and setting in operation the machinery of assessment. With an internal revenue office already in existence, the time needed for this could hardly exceed a few weeks.

An income tax has the considerable advantage of being responsive to the influences of patriotism, which are certain to be strong whenever a serious war is undertaken by a democratic country. Indirect taxes have not this quality. Their returns depend on the course of trade, industry, and commerce, or on consumption, and are likely to be adversely affected by the outbreak of war. But the productiveness of an income tax depends, in large measure, upon the readiness of men to reveal their incomes and meet the tax. To this extent it assumes the nature of a voluntary contribution, to which men will respond more freely when they realize that the hour is one of sore need and, perhaps, of peril to the country. Otherwise it would have taken a stronger government than ours and a more efficient civil service to secure as good results as were obtained from this form of taxation. On the floor of Congress Mr. Morrill referred to "our income tax" as being, "after all, but little more than each individual chooses to pay on his own estimate of his income"; and at another time he said that "the law left it almost to the conscience of each man how much he should pay, and all seemed to vie with each other as to who should pay the most." Doubtless this picture, although rose-colored, had a background of substantial truth. No one seriously imagines that under the war tax all income was fully revealed and adequately assessed; but it is certain that better results were secured from the tax, and with less complaint and opposition than would be possible in ordinary times. It would have been strange, indeed, if the patriotism which led men to volunteer for the field in such numbers had been inoperative when contributions of money were called for.

Our experience with the war tax, however, will hardly explain or justify the movement in favor of a personal income tax of the form now proposed and under the present conditions. Neither does it afford a fair indication of what results

may be expected from such a form of taxation now. We may safely predict that they will compare unfavorably with those which were obtained in the war period unless the assessment is made much more stringent and efficient. Probably, however, the assessment of the war tax went as far in the direction of stringency, and attained as high a degree of efficiency as the temper and disposition of the American people and the condition of our civil service will permit.

A tax on the interest and dividends of corporations presents a different aspect. So far as its assessment is concerned, it is free from the difficulties which beset the personal tax. It may be assessed with comparative completeness and without inquisitorial procedure, and affords a much more convenient and less vexatious method of raising revenue. But it greatly increases the difficulty of making exemptions or reductions out of regard to the circumstances of the tax-payers, and it reaches only one form of income. Justice requires the taxation of other forms also; and this it is difficult to do without a resort to the personal tax.

JOSEPH A. HILL.

THE UNEMPLOYED IN AMERICAN CITIES.

II.

THE present paper is an attempt to give in brief outline some account of the various methods and agencies for the relief or treatment of the unemployed that have been developed in American cities during the winter of 1898-94. Measures described in the January number of this *Journal* are here omitted unless new developments have occurred. No attempt is made to discuss the efficacy of the different methods or their probable ultimate result. The information here presented has been obtained from much the same authorities as were relied upon in the previous article. Of the twelve hundred circulars of inquiry sent to municipal officials, members of relief committees, officers of charitable organizations, and other citizens, a generous proportion have been carefully, often elaborately, answered. The writer wishes to express his renewed obligation to the many correspondents who have thus kindly assisted this investigation. Some additional data have been drawn from newspapers and magazine articles.

The account of relief measures is arranged not geographically, but according to a scheme of classification intended to bring out the essential character of the different undertakings, and based primarily upon the agency conducting the work, and secondarily upon the methods employed and the form of assistance rendered. Under each sub-heading, however, the arrangement of the cases given follows the geographical arrangement of the former article. The scheme of classification adopted is by no means sufficient to compass all the various devices which ingenuity and necessity have combined to invent. It often involves the putting asunder what the charitable have joined together, and the treating of certain relief schemes which combine several agencies and methods, either under two or more heads or else under the group to which they seem most essentially to belong. But, despite these defects, the scheme serves as a convenient method of summariz-

ing the great variety of devices which have been adopted to tide the unemployed over the period of depression. With these explanations the agencies and methods may be provisionally classified as follows:—

A. Enlarged efforts and sometimes novel methods of permanent charitable organizations in providing,—

1. Assistance in the form of supplies, usually given after investigation, and sometimes after a work-test;
2. Loans at a fair rate of interest;
3. Assistance in obtaining employment;
4. Employment usually paid in the form of supplies or orders.

B. Enlarged efforts or novel methods of the established municipal or county agencies of relief, in providing,—

1. Supplies or orders given after investigation, and sometimes after a work-test according to usual methods;
2. Special emergency employment.

C. Relief measures undertaken by citizens' committees or other agencies, in most cases called into existence to meet the special exigency in furnishing,—

1. Funds,—the committee disbursing subscriptions it receives among other charitable agencies;
2. Supplies disbursed (*a*) free; (*b*) at less than market rates; (*c*) upon loan in return for promise to work or pay; (*d*) after careful investigation;
3. Employment, (*a*) secured by committee; (*b*) provided by the committee; (*c*) paid for by the committee, but utilized upon public work; (*d*) paid for jointly by the committee and the municipality.

D. Relief measures by the municipal governments, by the undertaking of new public works or the acceleration of those already begun, in order to provide employment.

A.

The charitable organizations have very generally and very considerably increased the amount of their work. In the great centres many of them have multiplied their activities manifold. Thus in Boston the Associated Charities has more than

doubled its work, and in January dealt with four times as many new cases as in the same month a year ago. The Providence Society for Organizing Charity has increased its work about one-half. In Brooklyn the organized societies have borne the brunt of the crisis. In Detroit they have tripled their activities. In Milwaukee they have doubled their work. In Minneapolis they have increased it three hundred or four hundred per cent. In New York a careful estimate places the disbursements of some twenty organized societies during the six months ending with February at about \$600,000. Many of the smaller cities, even among those where the depression was slightly felt, show an increase in the work of their permanent charitable organizations. At the same time it is to be remembered that there are many communities, particularly in the Southern States and in the agricultural States generally, that do not show even this index of unusual distress.

There have been during the past twelve months a considerable number of permanent charitable organizations founded or reorganized, most of them late last fall, doubtless as a preparation for the anticipated distress of the winter. For example, Associated Charities or Charity Organization Societies have been formed in Somerville, Massachusetts; Woonsocket, Rhode Island; Schenectady, New York; Elizabeth, New Jersey; Scranton, Pennsylvania; New Castle, Delaware; Anderson, Indiana; Eau Claire and La Crosse, Wisconsin; Memphis, Tennessee; and Helena, Montana.

The work of permanent charitable organizations, so far as it concerns the unemployed, may, for the most part, be included under the following subdivisions:—

1. *Assistance in the form of supplies, usually given after investigation, and sometimes after a work-test.*—In general these societies have carried out this form of assistance with little change from their usual methods. A few illustrations may be given.

In Boston the Provident Association, which disburses food, fuel, and clothing upon investigation and, in some cases, after testing the applicant's readiness to work, has given nearly

double the usual amount of aid during the past winter. The Society of St. Vincent de Paul during the calendar year relieved 1,608 families, or 6,090 persons, an increase over the numbers of 1892 of 266 families, or 1,346 persons.

The United Hebrew Charities of New York relieved 18,370 families, or 50,440 persons, from October to February, at an expense of \$103,102, as against \$46,498 for the same period a year ago. The Brooklyn Association for Improving the Condition of the Poor during February aided 7,926 families, at an expense of \$10,249.

A form of assistance given with little or no investigation, but by a society that comes under this general head of permanent organizations, and that is an interesting modification of the common type of cheap food dispensaries under the patronage of permanent societies, may here be seen in the "St. Andrew's coffee-stands," of which there are six in New York City, supplying meals of bread and coffee for one cent. Meals are sold "without regard to age, sex, nationality, or creed," and without long delay for investigation. Soup-houses and cheap restaurants are maintained in a considerable number of cities by permanent societies of one sort or another; but most of these enterprises have been undertaken rather by agencies of a temporary character, and so belong to another division of this paper.

2. *Loans at a fair rate of interest.*—The loaning of funds to persons in temporary distress at a fairer rate of interest and with more considerate treatment than is accorded by the ordinary loan and pawn establishments is a mode of assistance that has of late attracted a good deal of attention, but has not been much resorted to by permanent charitable organizations. One prominent instance of such an undertaking is the Provident Loan Society recently organized in New York, with a capital of \$100,000. It loans sums up to \$100 on personal property at the rate of one per cent. per month, and is intended to be a paying as well as benevolent institution. Some ordinary charitable societies give assistance in the form of loans.

3. *Assistance in obtaining employment.*—In nearly all the large cities there are organizations which make it the whole or

part of their task to act as free bureaus of employment, and even to make special, active efforts to obtain employment for persons out of work. In this connection should be noted the work of the labor organizations, some of which maintain special employment offices for their own trades, and many of which act in one way or another as employment agencies. Of those organizations which exist solely for the sake of helping persons to secure employment, the Industrial Aid Society of Boston is an excellent example. This organization has greatly increased its efforts to meet the exigency of the times. During the six months from October, 1893, to March, 1894, it registered 2,757 applicants for employment, and found places for 814, as against 1,830 applicants and 1,146 places secured during the entire year ending with September, 1893. A comparison of the first three months of the two years shows a similar marked increase in the number of applicants over the number of places which were filled:—

	January-March, 1893.	January-March, 1894.
Employers applied	281	420
“ supplied	213	307
Applicants for employment	622	1,281
Applicants received “	527	528

Many of the charity organization societies and some other organizations, such as churches, maintain free agencies for employment as one department of their work. As one instance may be cited the labor bureau of the Associated Charities for Industrial Relief of Bridgeport, Connecticut, which during 1893 obtained 5,454 days' employment for women.

4. *Employment usually paid for in the form of supplies or orders.*—Permanent societies have very commonly increased this form of assistance. Often the employment is provided mainly as a work-test to determine the applicant's sincerity in asking for relief. In other cases, however, it is intended to demand something like a fair equivalent in work for the aid rendered. The following are instances of employment furnished by Charity Organization Societies:—

The Associated Charities of Cambridge opened a wood-yard which has given some employment to upwards of 200

men, at a gross expenditure of \$2,400, but at a net loss of only \$264.

The Associated Charities of Waltham provided work for women in sewing at 12 cents an hour, and for men in weaving mats.

In New Haven the Organized Charities have expended \$1,643 in giving employment during the three months ending with April, an increase of 218 per cent. over the same months of last year.

The Charity Organization Society of New York has greatly increased its work. In a single week it has furnished employment at the Wayfarers' Lodge for 1,203 men.

The Brooklyn Bureau of Charities has greatly extended its operations, and has provided temporary work in fur-cutting.

The Philadelphia Society for Organizing Charity has provided emergency work in the cleaning of alleys, employing a small number of men at \$1 per day.

The Associated Charities of Cincinnati, aided by something over \$8,000, received through the Citizens' Relief Committee, provided a considerable variety of emergency employment. Besides its work-room for women and wood-yard for men, it set men to work quarrying stone and wrecking old buildings, employing several hundred persons a day during a part of the winter.

The Indianapolis Charity Organization Society has provided work for women in washing, scrubbing, sewing, and even in visiting the aged, the work being graded according to the capacity and disposition of the applicant.

The Associated Charities of Des Moines expended \$1,327, employing men in cleaning the streets. The pay was given in the form of supplies.

In Chattanooga, Tennessee, the Associated Charities have provided laundry work for women.

The Associated Charities of San Francisco has been giving employment at its wood-yard on a self-supporting basis to an increased number of persons. During 1893 employment was given to 3,666.

B.

As was said in the case of established charitable societies, so it may be affirmed in the case of the established municipal and county agencies of relief that they have very generally, but by no means universally, increased the amount of assistance rendered. To give a few cases taken almost at random, it is stated that during recent months the public poor authorities of Lowell, Massachusetts, have increased their work 40 per cent.; those of Taunton, 200 per cent.; those of Elmira, New York, 50 per cent.; those of Yonkers, 300 per cent.; those of Pittsburg, 300 per cent.; those of Milwaukee, 200 per cent.; those of Detroit and Minneapolis, 48; and Omaha, 300 per cent. This list is probably a fairly typical one of those cities, large and small, where the depression has been severely felt. But it must be remembered that there are many cities of considerable population and a large number of smaller places where no noticeable increase in the public poor expenditure has been found necessary. Portland, Charleston, and New Orleans are examples of considerable cities where neither the poor relief officials nor any other agencies have found any special efforts required. Cincinnati is an instance where public relief has actually been diminished, the officials reporting that, owing to relief in work and supplies by the relief committee, there has been a somewhat less demand.

The work of the public agencies of relief, so far as it concerns the various classes of the unemployed, may be divided into two heads.

1. *Supplies or orders given after investigation, and sometimes after a work-test according to accustomed methods.*—In some cities even, as, for instance, in Scranton, Pennsylvania, where outside aid is not usually granted, the poor authorities have changed the policy to meet the special exigency. This has been the prevalent form of aid given. In some places minor changes in method have been made, such as the establishment of storehouses at which the poor could obtain supplies directly instead of getting them through orders upon the ordinary grocery stores. In some places, too, as, for example, in

Springfield, Massachusetts, the overseers have established wayfarers' lodges and wood-yards, in order to provide a more adequate work-test. But, in general, the methods pursued have been along the accustomed lines. Some details with regard to a few New England cities are here given:—

In Boston the Overseers of the Poor aided during the year ending with January, 1894, 3,381 families, an increase of 1,169 families over the previous year. The increase was especially marked in January, when, owing, as the overseers think, to the agitation and measures of the previous month, "the number of applicants rose to extraordinary figures"; and the number of families aided rose to 2,400, as against 1,434 in January, 1893. This aid is given to able-bodied men only in return for work in the wood-yard, somewhat over one dollar's worth of supplies being given for seven hours' work. The number of days' work performed on these terms was 3,899, as against 1,057 in the previous year. Of the 929 men who were given the opportunity to do this work, 723 availed themselves of it. The Wayfarers' Lodge, which is connected with the wood-yard, and which is intended for transients, has had a total of 33,317 lodgers during the year, this being not much in excess of the number of normal years.

During the last three months of 1893 the Cambridge Overseers of the Poor rendered nearly double the assistance that they did during the same months of the previous year, aiding 621 families, at an expense of \$2,398.

In New Haven the town authorities have expended from November to April \$16,265, partly to give employment, and also a small sum in maintaining a wood-yard.

In Providence the authorities have given assistance to 7,951 persons from November to May, as against 1,703 persons for the same months a year previous. All able-bodied men are subjected to a work-test.

2. *Special emergency employment.*—The notable experiment of providing work on such terms that the men receiving it should not thereby become paupers was instituted by the Overseers of the Poor of Boston, who appropriated \$3,000 to employ needy heads of families, with a view to prevent them from becoming regular recipients of relief. This employment

was given only after investigation, and the persons receiving it were not entered as paupers. \$1.25 was paid for eight hours' work at cutting, sawing, or piling wood. From December 19 to February 1 the number of men thus employed was 315, and the number of days' work furnished was 2,037½.

So far as the writer is aware, this peculiar method of relief has not been adopted elsewhere. In several cities, however, the poor relief authorities have taken special measures to provide work. Thus the Supervisors of the Poor of Joliet, Illinois, have afforded employment upon the streets to the extent since January 1 of 8,240 days' work, paying for it in groceries furnished. In Seattle, Washington; the County Commissioners have provided employment, in the form of ditching and grading, for the recipients of public aid.

C.

Relief measures undertaken by citizens' committees and similar bodies have constituted a most important factor in the recent methods of aiding the unemployed. Most of the large cities of the country have had during the past winter at least one committee, most often of a semi-official character, appointed to deal with the special exigency resulting from the diminution of accustomed employment. Some cities have had not only one, but several committees, some officially appointed, some springing spontaneously into being, all acting with a greater or less degree of co-operation. Other cities, as, for example, Chicago, have had successive committees, one taking the place of the other. In some places, notably Philadelphia, permanent organizations have assumed the functions, often quite foreign to their ordinary work, of relief committees. Lastly, some of the committees organized primarily to meet the immediate crisis have become relatively permanent bodies, and have prepared to continue their work at least into the coming winter.

The work of relief committees may be classified in three groups according as it has consisted mainly in collecting funds for other agencies, in distributing supplies, or in providing employment. Under each of these heads the writer has noted

nearly all the undertakings of a significant or extensive character of which he has been able to learn.

In running through the list, it will be seen that, while some special effort of this sort has been made in nearly all of the great centres of population, there have been few undertakings of very large dimensions, whether judged in relation to other semi-public expenditures or in relation to the number of persons who have been deprived of their ordinary occupations. In many smaller places relief committees, not mentioned in the following list, have raised some hundreds or even a few thousands of dollars which have been expended in a variety of ways, most commonly, however, in affording direct relief in food or other supplies, sometimes after investigation and sometimes without much delay. The ordinary soup-house where food is given away or sold at low rates has been rather frequently resorted to, though not so frequently, perhaps, as might have been expected. The work of the smaller relief committees in large cities has also been for the most part omitted from the present summary.

1. *Committees collecting funds to be subsequently disbursed among other charitable organizations.*—A considerable number of relief committees have been virtually committees of ways and means. Their work has consisted mainly, sometimes solely, in procuring funds for the maintenance of other relief agencies. A small portion of the funds subscribed through the Boston Citizens' Relief Committee were given to independent committees, to enable them to continue the giving of emergency employment to women. The following are cases where the collecting of funds for other agencies formed not a part of the work of the relief committee, but practically the whole of it.

The New York Citizens' Relief Committee had, up to March 15, disbursed some \$133,000 among various charitable organizations. Of this amount the members of the committee contributed \$61,750. The mayor's fund, largely contributed by public employees, but in part also by private citizens, had, up to the same date, disbursed about \$56,000 among charitable organizations. "The Emergency Fund to give Relief by Work" has reached the sum of \$151,512. This has been dis-

bursed as follows: to the East Side Relief Work Committee, \$102,519; to the West Side Relief Work Committee, \$21,150; to the East Side House, \$4,000; to the West Side Relief Committee, \$4,500; relief work at De Milt Dispensary, \$5,825; Tompkins Square Relief Committee, \$4,800; Woman's Conference of Ethical Culture Society, \$3,250; and in other smaller amounts. In Brooklyn the mayor appointed a committee to receive funds and distribute them among existing societies. The committee of the Rochester Chamber of Commerce raised about \$13,000, which was disbursed by the Society of Organized Charities. The Relief Committees in Cincinnati and Cleveland raised funds for established charities, the committee of the latter city turning over \$26,400 to the Bethel Charities.

2. *Committees furnishing supplies.*—Many of the important semi-official committees have made the disbursing of supplies, after one method or another, at least a part of their work. There have been further a multitude of small volunteer or private committees that have confined themselves to providing this kind of relief.

(a) Free food, lodging or clothing has been given out with little or no investigation in a considerable number of cities, and by a variety of temporary agencies, though not often by the principal relief committees. Thus food has been given away—to take for illustration the cities of a single State—at soup-houses in New York City, in Rochester, in Schenectady, in Yonkers, and doubtless in many other cities. In Chicago, during the earlier part of the winter, food, lodging, and clothing were given away on a large scale to any one who applied. In Minneapolis soup and bread were for a time offered free to the lodgers at police stations; but this plan was opposed by the Associated Charities, and has been discontinued by the present mayor. Pittsburg, Milwaukee, Omaha, Salt Lake City, are among the larger places where free soup-houses have been established. In a considerable number of places, moreover, where supplies are not directly given, they are furnished in return for meal tickets distributed at the discretion of citizens.

(b) The selling of food or other supplies at less than market

rates has been a common method on the part of special relief agencies of tiding the unemployed over the period of distress. The food has been sold sometimes with no question or formality, sometimes after investigation.

Three restaurants where meals are sold for five cents have been established in Boston by a volunteer committee. At the largest of these 67,538 meals were served between December 27 and March 2. Food is also sold to be taken away, and some families have been supplied without charge. A small proportion of the meals, also, are given away either directly by the restaurants or indirectly by individuals through a system of checks. One of the restaurants which was started especially for women did not pay, and was soon abandoned; but the others have more than paid expenses. In Worcester five-cent restaurants and lodging-houses have been established. A "supply kitchen" has been established in Providence, where food is sold at low rates, a plate of beef, for example, being offered for three cents. Still, it is intended to pay expenses. A Rescue Mission at Manchester, New Hampshire, furnishes meals for five cents, and "permits no one to go away hungry."

In New York the Industrial Christian Alliance has established seven restaurants and stores where about 1,000,000 five-cent meals and packages of groceries have been dispensed. The combined receipts from these establishments average about \$300 a day, and this sum just about pays expenses. The Business Men's Relief Committee, which has supplied the funds for this undertaking, has spent most of its surplus in tickets entitling their holders to meals, and has distributed over 500,000 such tickets through various charitable agencies. The total expenditure to March 29 was \$20,000.

The provision of coal, food, and other supplies at wholesale rates by Mr. Nathan Strauss, of New York, though the work of a single individual, deserves in point of magnitude to be classed with the operations of relief committees. Since the beginning of his work, he has sold at minimum cost price 41,000,000 pounds of coal, 400,000 loaves of bread, 400,000 pounds of sugar, 175,000 pounds of flour, 175,000 pounds of

coffee, 50,000 pounds of tea, and has supplied cheap lodgings to 60,000 men and 3,500 women at a personal loss, it is said, of \$100,000.

One of the most remarkable experiments in supplying the unemployed with food was that of the Citizens' Relief Committee of Paterson, New Jersey. Rations of sixteen ounces of food—bread, pork, fish, beans, rice, tea, beef, and sugar—were provided at a total cost to the committee of four cents for each ration. About 250,000 of these rations were given out, always after investigation by a visiting committee, and, in the case of able-bodied men, after test-work in wood-cutting. The amount expended by the committee was about \$12,000.

(c) Money, food, and other supplies have in some instances been advanced upon loan in return for promise to pay, or to work for the committee. Two notable instances are the relief methods in Philadelphia and Indianapolis.

The Philadelphia Citizens' Permanent Relief Committee, in order to preserve the self-respect of applicants for aid, advanced a portion of its assistance in the form of loans upon personal notes. The value of such loans amounted to \$1,797. Some of these loans have already been repaid.

The Commercial Club Relief Committee of Indianapolis during the winter supplied food at wholesale rates to *bona fide* and needy citizens upon promise to pay for the same, either in money or in work for the committee at 12½ cents per hour. About 5,000 persons were thus supplied with food at something like half the retail rates, at a total expenditure by the committee of about \$20,000. The actual cost of the food, good in quality and sufficient in amount, was from 18 to 25 cents per week for each person.

(d) The providing of money, supplies, and sometimes current house rent, given after careful investigation, has been a rather common form of assistance on the part particularly of the smaller relief committees. The most important committee employing this method was the Permanent Relief Committee of Philadelphia, which, however, toward the end of its work, substituted the work-test for investigation. Under this head should be classed much of the aid extended by the committees

organized by trades-unions for the relief of their members. In Boston the Relief Committee of the Central Labor Union disbursed some \$900, besides a large quantity of clothing. In Minneapolis the Committee of the Trades Council distributed some \$450 in provisions. The Worcester Relief Committee has expended about \$7,500 in supplies given after investigation.

In Brooklyn many relief committees have been organized, and most of them are working in co-operation. The Emergency Committee, organized in February, afforded relief to 4,805 people within the first month of its existence.

The so-called 6-15-99 Club, which now has 258 branches and 10,000 members in New York City, mostly among the laboring people, has done a good deal of work directly and through the ordinary charitable societies. The Citizens' Relief Committee of Syracuse has disbursed coal and provisions to the extent of about \$5,470.

The Citizens' Permanent Relief Committee of Philadelphia, besides its appropriations for emergency work, has disbursed through its thirty-two branches about \$130,000 in food, clothing, and other supplies to some 70,000 persons, or 17,938 families. Of the above amount, over \$7,500 went to the payment of current rents on condition that the tenants should not be evicted during the period for which the payment was made.

The Central Relief Committee of Washington, with the co-operation of the police, the Associated Charities, and other organizations, has disbursed relief to the extent of \$20,000. Meals are sold for ten cents, and meal tickets given out for free distribution.

In Minneapolis the mayor, acting practically as a relief committee, has disbursed supplies amounting to perhaps \$2,000 or \$3,000 per day. Several local relief committees are also at work.

3. *Committees providing employment.*—The demand most frequently made in behalf of the unemployed has been a demand for work; and this demand a considerable number of citizens' committees have sought in some measure to satisfy, by a variety of ingenious devices to provide emergency employment which would disturb as little as possible the conditions of the ordinary labor market.

(a) Work under private firms, contractors, or public officials, has in a number of places been obtained for the unemployed through the agency of the relief committee. The most notable instance of this form of relief was the work on the great drainage canal obtained for the unemployed of Chicago by the relief committee of last summer. A number of cities have employed on public work men taken from the lists of the relief committee. Much effort has been made also to obtain private employment. Thus the Boston Citizens' Relief Committee secured private employment for considerable numbers of women applying to it. Emergency committees have also organized special employment bureaus. Thus in New York City the free labor bureau of the 6-15-99 Club has found employment for many persons, securing places for 105 applicants in a single week. The free labor bureau of the Provisional Committee has found employment for considerable numbers. A group of citizens in New York have recently organized a Mutual Employment Society which will establish a free employment bureau.

(b) Emergency work, usually planned to interfere as little as possible with the ordinary labor market, has, in a good number of cities, been provided directly by the relief committee.

The Relief Committee of Boston provided employment in the making of rug carpets and quilts, paying women 80 cents per day and men unfitted for the outdoor relief work \$1 per day. Employment was given for three days each week. \$9,900 was paid in wages to men, about \$32,000 to women. The rooms were given rent free, and most of the material was contributed. Some \$3,276 were realized from the sale of the products of this labor. The committee also contributed \$11,550, which gave some employment to about 700 women in four emergency work-rooms established by private persons and furnishing work to a somewhat more skilled class. The Cambridge Relief Committee, in co-operation with the Women's Relief Committee, have employed about 125 women daily, giving each woman twenty hours' work, combined with instruction, each week, at 10 cents per hour. The total amount paid in wages was \$2,525.

The Providence Relief Committee furnished sewing to some 200 women, each working six half-days per week for \$2.40. The expense of this work was about \$4,300, and the receipts from the sale of the product amounted to \$553.

The East Side Relief Work Committee of New York provided work for garment workers, in making clothing, which was at first sent to the cyclone sufferers of South Carolina, and later distributed in the city. Wages paid were at first 70 and later 80 cents per day for five days in the week. 1,085 persons were given work, none for less than one week, and many for six or eight weeks. In addition, sewing and other work have been given out to about 116 women each week at their homes, at \$3 a week. The total expense of this work has been \$25,364, of which \$17,648 has been paid in wages. This committee also undertook the novel task of cleaning and whitewashing tenements. At this work 936 individuals have been employed at an expense of \$22,424, of which \$20,558 has been paid for labor. The owners of the tenements contributed \$259 to this work.

In Orange, New Jersey, the Special Relief Committee, in connection with the Bureau of Associated Charities, furnished work for men in sifting ashes and sawing wood, and for women in sewing, expending about \$3,260 in wages to men, and \$570 in women's wages. A wood-yard in Paterson provided some 2,500 days' work.

The Central Relief Committee of Baltimore opened a Wayfarers' Lodge, which, in co-operation with the Friendly Inn, already an established institution, undertook to care for all transient unemployed, of whom, under the police lodging-house *régime*, there had been great numbers in Baltimore. The two institutions provided for 250 lodgers nightly, but less than that number appeared; and it is believed that at least one hundred of the station-house lodgers left town as soon as the customary free shelter was closed to them. The committee provided work at breaking stone for a wholly different class of unemployed,—resident heads of families, chosen after investigation. Men were paid \$1 a day, and were given two or more days' work per week, an average of 121 being employed daily; and about \$6,394 was expended in wages.

In Chicago the Women's Club Emergency Association has been furnishing employment to several hundred women at its sewing-rooms.

(c) Labor of public utility, under the direction of public officials, has in a considerable number of cases been provided and paid for by the relief committees.

The Boston Citizens' Relief Committee employed men three days a week, at \$1.50 per day, in cleaning alleys under the direction of the regular foreman. About 17,000 days' labor were given, and some \$25,000 paid in wages.

In New York the East Side Relief Work Committee in November set a small force of men cleaning streets not ordinarily swept by the city. The force was gradually increased to 887 men. Tickets for this work were given out through the trades-unions, churches, and other agencies. 59,829 days' work at \$1 a day was given to at least 4,000 different men, at a total expenditure of \$65,738, of which \$62,346 went to wages.

The Citizens' Permanent Relief Committee of Philadelphia, which during the first part of the winter gave direct aid with no return in work, later set men at work in Fairmount Park under the direction of the Park Commission. Men were paid at the rate of \$1 per day, and 14,700 days' work were provided for some 3,500 men. Towards the end of the committee's operations this emergency work entirely displaced the other forms of assistance.

In Pittsburg, under the stimulus of Mr. Andrew Carnegie's offer to duplicate the amount contributed by the citizens, the Relief Committee obtained subscriptions amounting to about \$130,000. The \$260,000 which thus became available was expended in the employment of about 4,000 men daily, at \$1 a day, in improving the parks of the city. Men were employed only upon the indorsement of the police of the district in which they lived.

Allegheny has raised a relief fund, largely through the efforts of the Department of Charities, amounting to \$25,000; and of this nearly \$20,000 has been expended in wages to men employed on public improvements.

The Relief Committee of Toledo had early in the winter

raised \$15,000, to be expended in park improvements in conjunction with a like sum appropriated by the city.

The Commercial Club Relief Committee of Indianapolis set the men indebted to it for food to work improving the streets and parks of the city. They were paid nominally at the rate of 12½ cents per hour; but, as they received their reward in food at less than half retail prices, the real rate of wages was something like 25 cents per hour.

The Chicago Central Relief Association, in addition to its usefulness in centralizing and systematizing the numerous methods and agencies which were in operation in the early winter, has provided work for heads of families, after investigation, at the rate of 50 cents for five hours' work. As the men were allowed to exchange their work-checks for food at less than one-half the ordinary prices, their real remuneration was much larger than their nominal pay. Work on the streets was provided for several thousand homeless men as a work-test, their pay being given in the form of meals and lodging. They were further allowed to work extra hours to obtain clothing and shoes at manufacturers' prices. The receipts of this association have amounted to \$129,945.

The Citizens' Relief Committee of St. Paul, with the aid of street and park appropriations put in its charge by the city, has furnished 6,504 days' work at \$1 per day, which has been divided among 2,156 laborers.

In Salt Lake City the General Relief Committee has expended some \$11,000, a part of which has been used in employing emergency laborers upon a new boulevard.

In San Francisco, after several not very successful efforts to render assistance to the unemployed, the Citizens' Relief Committee was organized. The \$92,045 raised was used to employ laborers in improving one of the parks of the city; and some twelve miles of roads and paths were thereby constructed. Every dollar of the fund was expended in wages, the park authorities supplying the supervision and tools at an expense of \$15,940. The laborers received \$1 per day, and not over 30 days' work was given to any one man. Mid-day meals were provided for the laborers by the children of the various public schools.

(d) Public work has, in a number of cases, been pushed or anticipated in virtue of the relief committee assuming the difference between the emergency cost and the normal cost. This very ingenious method of setting afloat in wages a considerable sum at a comparatively small outlay by the committee seems to have been peculiar to Boston. The Citizens' Relief Committee of that city arranged for the construction of seventeen sewers which would not otherwise have been undertaken till spring. The relief laborers received \$1.50 for nine hours' work, and were employed in weekly shifts. The city paid the contractors the normal summer cost; and the committee made up the difference between that and the actual cost, guaranteeing the contractor a profit of 15 per cent. upon the labor cost. The deficit, which the committee paid and which was mainly due to unforeseen difficulties of construction, amounted to \$9,660. It enabled contracts amounting to \$32,421 to be executed during the period of greatest exigency, and thus set afloat \$24,168 in wages, of which \$10,254 went to the relief laborers. The Relief Committee further undertook the building of a portion of Talbot Avenue. The total cost was \$5,200, of which \$3,628 went as wages for 2,347 days' labor. The "normal cost" paid by the city was \$3,103. It also undertook to remove earth from certain of the South Boston hills to the strand-way, where it was utilized as filling in place of earth that would otherwise have been dredged from the bay. On this work \$7,985 was expended, of which \$3,520 went to requite 2,347 days' work by the relief laborers, and most of the remainder for trams and other labor. The amount received from the park commissioners and from the owners of the land benefited was \$3,044. On both of these last enterprises the relief laborers were employed in weekly shifts at \$1.50 per day.

D.

Strictly public work has been in a large number of cities either accelerated or even newly undertaken, with the more or less distinct purpose of furnishing emergency employment. The amount of such public work has not, however, been, with a few exceptions, very extensive. This is to be accounted for

partly by the provisions of municipal charters and State laws, making it in many cases difficult or impossible for the cities to appropriate funds for such a purpose, and partly also by the difficulties of prosecuting most sorts of municipal work during the winter. But back of these drawbacks is the fact that the effective public opinion of the community has not been willing to go very far in expending public funds in the prosecution of works which, however desirable in themselves, have been advocated primarily for the ulterior motive of furnishing public employment.

In considering the steps that have actually been taken, it would be desirable to distinguish between public work already under way and work merely somewhat expedited; work contemplated, perhaps, but which would not in ordinary circumstances have been soon begun; and, lastly, work which has been the result of the city authorities seeking out some new thing to do. It would be well to distinguish also, from a slightly different point of view, between public undertakings in which the desire to furnish emergency employment was but an auxiliary object and those of which it was the primary motive. But such an analysis it is difficult to make with confidence, on account of indefiniteness of information as to both the obvious and the hidden influences and motives that have determined the attitude of public officials. It is clear that the million dollars' appropriation for park improvements in New York City was a fairly direct response to the demand of the unemployed for work. It is equally obvious that, for example, in the large appropriation for sewer construction in Dayton, Ohio, the idea of providing employment was only a secondary object. Other cases are, however, not so plain; and it has seemed best not to classify them. The following list covers the larger expenditures, during the winter, of which information has been received. By way of illustration, smaller expenditures are also included in the case of New England. In other parts of the country many of these last are omitted. No notice, moreover, is taken of ordinary municipal expenditures in which the object of furnishing employment does not seem to have had any weight.

In Boston work upon public buildings that would ordina-

rily have been deferred until spring was prosecuted during the winter and in the employ of the Park Department about 400 men were kept at work breaking up stone, and in similar work not ordinarily carried on during the winter. In Lowell a considerable amount of work in the building of sewers and streets has been anticipated, in order to furnish employment. About \$120,000 has been expended, and some 800 men employed. Part of the men have worked in weekly shifts. New Bedford appropriated \$50,000 in January for emergency employment in the parks and streets.

Lawrence made in January an additional appropriation of \$15,000 for emergency work in filling low lands. Some 300 men were employed until nearly the last of March. Springfield has expended about \$23,000 for work on streets and parks which would probably under ordinary circumstances have been deferred. Worcester has expended about \$17,000 in employing some 500 men in emergency work on streets. Taunton, by an appropriation of \$9,985, kept three groups of 200 men each working in alternate gangs for three months in cutting down a gravel hill. Cambridge has anticipated work in connection with the water supply system. Everett has very slightly increased the number of laborers in some of its departments. Salem has expended \$4,000, and North Attleboro \$1,000, in relief work. Public work has been anticipated also at Holyoke and Fitchburg.

Waterbury, Connecticut, appropriated \$10,000 for emergency work on roads; and Bridgeport has expended \$5,000 in similar undertakings.

The city of Providence employed men selected by the Relief Committee in grading streets and abutting property, the city and the owners of the property paying about \$13,000 each. From 400 to 800 men were employed each week in three day shifts. Owing to a difficulty with some of the men as to the number of hours which they should work per day, the plan was given up, and the part of the work left unfinished was let to contractors.

Largely in response to the demands of the unemployed and their sympathizers in New York City, the State legislature by an act of February 2 authorized the park commissioners of

the city to expend \$1,000,000 for the improvement of parks and drives, with the object of furnishing emergency work for the unemployed. There has been much dissatisfaction expressed at the methods of selecting and hiring men employed by the park commissioners and by the labor "expert" who acted as their agent during the first portion of their work, and at the comparatively small number of men for whom work was found. Towards the end of March some 1,500 men were employed. The fund is said to be practically expended; but, as the commissioners are not yet ready to furnish their report of the work, it is too early to form a satisfactory estimate of its efficiency as a relief measure.

Buffalo is said to have expended \$100,000 more than usual, in order to furnish employment during the winter. Lockport employed men in three or four day shifts in emergency work on sewers and streets at an outlay of \$3,000, and in addition expedited ordinary contract work to the extent of about \$32,000. In Rochester an appropriation of \$10,000 was expended in park improvements, and an addition of \$26,800 to the ordinary expenses of street-cleaning for the purpose of furnishing employment. The emergency laborers were given from two to three days per week, and numbers of the regular force had their work cut down to $4\frac{1}{2}$ days per week.

In addition to the \$30,000 appropriation which was exhausted in December, the city of Cincinnati has appropriated \$100,000 for emergency work on the streets and parks. Some \$50,000 of this sum has been expended, and work has been furnished to 4,495 men taken from the lists of the Citizens' Relief Committee. After one week's employment each group of men was laid off for two weeks. Dayton, Ohio, appropriated \$300,000 for sewer construction, which is said to have been hastened to supply emergency work. Some 1,200 men have been employed through most of the winter. Toledo appropriated \$15,000 to be expended in connection with a like amount subscribed by citizens in park improvements.

Huntington, Indiana, is reported to have recently let contracts for sewers amounting to \$200,000. The improvements, it is said, are largely undertaken to supply laborers with work.

In Detroit about \$20,000 had been expended up to January 1 in filling a disused reservoir. The men were employed in shifts. Other city departments have taken on some 350 extra men sent by the Poor Commission.

Minneapolis expended some \$11,500 for emergency labor on sewers, employing 450 resident heads of families 20 to 25 days each.

Chattanooga, Tennessee, expended about \$2,500 in employing men recommended by the Associated Charities in breaking stone for the streets.

The city of St. Louis, by forcing a street railway company to carry out a long-standing contract to enlarge a small lake in one of the parks, has secured employment for 900 men a day for several months. The city has also expedited street improvements with a view to giving employment.

Burlington, Iowa, has expended \$3,000 on street improvements, giving a small amount of employment to a considerable number of men.

Helena, Montana, has expended about \$8,000 in street grading, in order to give employment. Butte City has laid out \$30,000 in sewer construction, partly with the idea of providing work.

In Salt Lake City some \$25,000 has been expended in grading, with a view of furnishing emergency work.

In Seattle \$35,000 was appropriated for sewer works early in the winter, with a view of giving employment to the greatest possible number of men. The laborers are employed in two crews, working alternate fortnights.

In attempting to obtain from the foregoing statements any adequate idea of the prevalence and extent of the various types of relief measures throughout the United States, it must be borne in mind that this article has dealt almost wholly with positive evidence. To give the negative evidence would be only to enumerate a long list of places where correspondents say no to all questions as to any unusual methods or measures of relief, and where the increase even in ordinary forms of assistance has hardly been noticeable. Speaking roughly, it may be said that, so far as can be judged from re-

ports received, the winter has passed without any considerable augmentation of the customary relief in most of the cities of the southern and south-western sections of the country.

The same might be affirmed of some of the Western and Central States which are predominately agricultural, such as Arkansas and Kansas, and — if we except a few of the larger cities — several others. Colorado and other mining States have found far less call for relief measures than during the months of last summer. Even among the Atlantic States the communities of Maine, Vermont, and New Hampshire have regarded special efforts as hardly necessary. The great centres for relief work have been the larger cities of the Atlantic and Pacific States and of the States bordering on the great lakes. On the other hand, it is necessary to remember that the account which has been given has excluded from consideration various considerable factors, such as the special charities of churches, of secret societies, and, with one or two exceptions, of private individuals. How important a factor is the increased credit, gifts, and other favors extended by individual members of the community to their less fortunate members, is indicated by the fact that a careful estimate places the value of private, family, and office giving in New York City during the year ending with February at \$7,300,000, as against \$1,800,000 in a normal year.

With due allowance for the foregoing considerations the results of the present investigation may be briefly summed up. In the important cities of the country, particularly in the manufacturing and commercial centres, there has been a somewhat general increase, ranging all the way from 5 to 300 or 400 per cent. in the work either of the ordinary charitable organizations or of municipal agencies, and often in the work of both. In a considerable number of cities special relief committees have provided for the unemployed food and other supplies, given out, sold, or "loaned" upon various conditions. In a considerable number of cases, also, such committees, either independently or with some degree of co-operation from the municipal authorities, have provided emergency work for those out of employment. Lastly, a not inconsiderable number of cities have begun or expedited public works, at least partly

for the sake of providing employment; but the extent of such employment has not been, relatively speaking, very large. Indeed, it may be said of the various relief measures that, while some of them have been developed only by great effort and devotion on the part of those in charge, none of them have been individually of extraordinary magnitude. Taken in the aggregate, however, they represent a vigorous effort on the part of the community to afford relief to those of its members suffering most severely from the industrial depression.*

CARLOS C. CLOSSON, JR.

* For a note on the number of the unemployed see the Appendix, p. 490.

NOTES AND MEMORANDA.

IN the death of Professor Wilhelm Georg Roscher, in June of the current year, economic science has lost one of its ablest teachers and writers, and perhaps its most learned scholar. Born in 1817, professor at Leipzig continuously from 1848 to 1894, he exercised first an important influence on the development of economic thought in Germany, and gradually made his views felt in every quarter of the globe. His position as the head of the older historical school, his part in the growth of new and wider views, his voluminous and unfailingly scholarly writings, are too well known to the readers of this *Journal* to call for eulogistic notice. It is a striking witness to the continued popularity of his best known book, the *Principles of Political Economy*, that a twenty-first edition was announced by the publishers in 1894, just forty years after its first appearance.

IN our last issue we had occasion to notice the first issue of the *Revue du Droit Public*. Another French periodical now makes a further accession to the large list of those which serve, in greater or less degree, to aid the student of economics and political science. The *Revue du Commerce et de l'Industrie* presented its first number in April, to appear monthly thereafter. The editor is M. Georges Paulet, chief of the bureau of commercial instruction in the Ministry of Commerce.

The prospectus sums up the programme in six words: "législation commerciale, renseignements commerciaux, enseignement technique." The *Revue* is addressed to men of affairs as well as to economists, promising information on means of transport, possible markets, technical education; but there will be a large share of matter for the student of general economics. The first number opens with an article from the well-known pen of M. Levasseur, on trade in agri-

cultural products in the United States, and has also articles on apprenticeship and on the monetary negotiations between France and Italy. There are editorial memoranda on the course of legislation, on commercial news, and technical education. The subscription price for foreign countries is 11.50 francs. The publishers are Berger-Levrault et Cie., Paris.

MR. CHARLES BOOTH, whose volume on the condition of the aged poor in Great Britain is among the important publications of the quarter, announces a second volume on the same subject, to deal with proposals for relief. We note, also, that the fifth and sixth volumes of his *Life and Labor of the People of London* are promised for early publication: they will deal with the trades of London generally.

UNDER the auspices of the American Society for the Extension of University Teaching a series of lectures will be given in Philadelphia during July by eight American economists of the younger generation. President E. B. Andrews will lecture on Money; Professor J. B. Clark, on Distribution; Professor F. H. Giddings, on the Scientific Subdivision of Political Economy; Professor A. T. Hadley, on Theories of Population; Professor J. W. Jenks, on the Relations of Economics and Politics; Professor Mayo-Smith, on the Ethnical Basis for Social Progress in the United States; Professor Patten, on Ricardian Economics, the Premises of Political Economy, and the Theory of Dynamic Economics; Professor Seligman, on Public Finance. The aim of this summer meeting of economists is to give expression to present American economic thought. Detailed information as to dates and terms may be had of the secretary of the Extension Society, Mr. E. T. Devine, 15th and Chestnut Streets, Philadelphia.

AMONG recent publications from the Government Printing Office at Washington, we note two reports prepared by Mr. W. C. Ford, chief of the Bureau of Statistics of the Treasury

Department. The first, on wool and manufactures of wool, while nominally a new edition of the report published on the same subject in 1887, is so much enlarged and remodelled as to be virtually a new publication. It contains a mass of information on the production, imports, prices, and uses of wool in all important countries over a considerable stretch of time. The second, on the commerce of the United States with European countries from 1790 to 1890, contains statistical tables of the total exports and imports for the several countries during the entire period, and tables of the trade in separate articles from 1871 to 1890. Both reports are well arranged and indexed, and present important material in convenient form. We may note, also, that the familiar annual report on the Commerce and Navigation of the United States, prepared by the same Bureau, appears for 1892-93 in a new dress. The volume has become a quarto instead of an octavo, and the sober black binding is replaced by blue. What is more important, the arrangement of the statistics has been improved, and the usual introductory text becomes a careful sketch of the economic history of the year 1892-93, illustrated by a number of interesting charts.

Publications like these are the natural and happy result of putting the direction of the statistical work of the government into trained and competent hands. The reports of the Commissioner of Labor and his assistants show the results of this simple and obvious principle in other directions; and we may perhaps hope that in future administrations the example now set in the preparation of the statistical work of the Treasury Department will continue to be followed.

THE Census Bureau has issued, in advance of the general report on manufacturing industries, a special report on Textiles, giving the results of the census inquiries of 1890 as to manufactures of wool, cotton, and silk, and as to the dyeing and finishing of textiles. In addition to the statistical tables there are accounts of the history and development of these textile industries in their various branches, the whole making

a compact monograph of high value for the economic history of the United States.

Mr. S. N. D. North, who supplies a general introduction, brings together the following summary figures, which show the striking differences in date and rate of growth between the older industries (woollens and cottons) and the newer industry (silks). The total reported value of the products put on the market by these three manufactures in the census years since 1840 was, in millions of dollars:—

<i>Year</i>	<i>Manufactures of</i>		
	<i>Wool</i>	<i>Cotton</i>	<i>Silk</i>
1840	20.7	46.4	
1850	48.6	61.9	1.8
1860	73.5	115.7	6.6
1870	199.3	177.5	12.2
1880	238.1	192.1	41.0
1890	270.5	268.0	87.3

For any careful or detailed use these figures would need much recasting. Allowances and corrections would have to be made in various ways: for changes in the price of the raw materials included in the total value; for the specie premium in 1870; not least, for duplications, especially in recent years, when yarns are reported at their selling value as products of the spinning mills, and appear again in the value of the cloth turned out by the mills which buy the yarn. The need of such corrections is pointed out in one place and another in the report, and will not escape any attentive reader. But even without them the late development of the silk manufacture, as compared with the others, is obvious. It is mainly a product of the high protective policy followed since the Civil War. Whether, in its present stage of growth, it is more dependent on protection than the other industries is another question, on which the evidence is difficult to get, and, indeed, could be got in conclusive form only by a test not likely to be applied for a long time in the future,—competition with the foreign manufacturers in an open market.

RECENT PUBLICATIONS UPON ECONOMICS.

[Chiefly published or announced since April, 1894.]

I. GENERAL WORKS, THEORY AND ITS HISTORY.

ANDREWS (E. B.). *Wealth and Moral Law*. Hartford: Seminary Press. \$1.

GIDDINGS (F. H.). *The Theory of Sociology*. Philadelphia: Am. Acad. Polit. and Soc. Sci. 8vo. pp. 80. 50 cts.

HOBSON (J. A.). *Evolution of Modern Capitalism. A Study of Machine Production*. London: W. Scott. 8vo. pp. 398. 3s. 6d.

HOFFMAN (F. S.). *The Sphere of the State; or, The People as a Body Politic. With Special Consideration of Certain Present Problems*. New York: G. P. Putnam's Sons. 12mo. \$1.50.

KÖHLER (O.). *Die wahre Natur des Menschen und der soziale Fortschritt*. Lief. 1. (To be completed in 6 Lief.) Leipzig: E. Grube. 8vo. pp. 72. Per lief., 60 m.

SMALL (A. W.) and VINCENT (G. E.). *An Introduction to the Study of Society*. New York: American Book Co. 12mo. pp. 320. [Announced.]

In Periodicals.

BARONE (E.). *A Proposito delle Indagini del Fisher*. Giorn. degli Econ., May.

BEMES (M.). *Les Deux Directions de la Sociologie Contemporaine*. Rev. d'Econ. Polit., March.

BÖHM-BAWERK (E.). *Der letzte Maassstab des Güterwerthes*. Zeitschr. f. Volksw., Socialpol., und Verwalt., 3, Heft 2.

FORNARI (T.). *Giudizii di F. Ferrara intorno ad Alcuni Economisti Italiani [concluded]*. Giorn. degli Econ., April.

GRAZIANI (A.). *I Valori di Monopolo*. La Riforma Sociale, May.

PATTEN (S. N.). *Failure of Biologic Sociology*. Annals Am. Acad. Polit. and Soc. Sci., May.

PEARSON (K.). *Woman and Labour*. Fortnightly, May.

RITCHIE (D. G.). *Il preteso Diritto Naturale di Proprietà*. La Riforma Sociale, May.

WEILL (G.). *Le Origini della Dottrina di Saint Simon*. La Riforma Sociale, May.

II. SOCIAL QUESTIONS, LABOR AND CAPITAL.

ADLER (G.). *Ueber die Aufgaben des Staates angesichts der Arbeitslosigkeit*. Akademische Antrittsrede. Tübingen: Laupp. 8vo. pp. 67. 1.20 m.

BRASSEY (Lord). *Papers and Addresses on Work and Wages*. London: Longmans. [Announced.]

BOOTH (C.). *The Aged Poor in England and Wales: Condition*.

- London and New York. Macmillan & Co. 8vo. pp. 525. \$3.50.
- GILMAN (D. C., editor). The Organization of Charities: Report of the Sixth Section of the International Congress of Charities at Chicago, June, 1893. Baltimore: Johns Hopkins Press. 8vo. pp. 432. \$1.50.
- HÄNDTSCHKE (H.). Die gewerblichen Produktivgenossenschaften in Deutschland. Berlin: G. Nauck. 8vo. pp. 357. 7 m.
- HARTMANN. Die sozialen Kernfragen. Leipzig: W. Friedrich. 8vo. 6 m. [Announced.]
- KENWORTHY (J. C.). From Bondage to Brotherhood: A Message to the Workers. London: W. Scott. 8vo. pp. 158. 1s.
- LIEBICH (C.). Obdachlos. Bilder aus dem sozialen und sittlichen Elend der Arbeitslosen. [With Preface by Ad. Wagner.] Berlin: Wiegandt & Grieben. 8vo. pp. 272. 3 m.
- MATHER (W.). The Forty-eight Hours' Week. A Year's Experiment, and its Results at the Salford Iron Works. Manchester, Eng.: The "Guardian" Office. 8vo. pp. 28.
- RAE (J.). Eight Hours for Work. London and New York: Macmillan & Co. 12mo. pp. 347. \$1.25.
- ROCHETIN (E.). La Caisse Nationale de Prévoyance Ouvrière et l'Intervention de l'État. Paris: Guillaumin. 18mo. 3.50 fr.
- SCHIKOWSKI (J.). Ueber Arbeitslosigkeit und Arbeitslosigkeitstistik. Leipzig: W. Friedrich. 8vo. pp. 91. 1.20 m.
- TAYLOR (R. W. C.). The Factory System and the Factory Acts. London: Methuen. 8vo. pp. 180. 2s. 6d.
- UNSIGNED. Arbeitslosigkeit und Arbeitsvermittlung in Industrie- und Handelsstädten. Bericht über sozialen Kongress, Frankfurt, Oct., 1893. Berlin: O. Liebmann. 8vo. pp. 24. 3.20 m.
- VINCENT (H.). The Story of the Commonweal. Complete and Graphic Narrative of the Origin and Growth of the Movement ["Coxey movement"]. Chicago: W. B. Conkey Co. 8vo. pp. 251. 50 cts.
- WEBB (S. and Beatrice). History of Trade-unionism. London: Longmans. 8vo. pp. 560. 18s.
- WYNN (W.). Social Inequalities. London: Simpkin. 8vo. pp. 154. 1s. 6d.
- In Periodicals.*
- ALBERTINI (L.). La Questione delle otto Ore di Lavoro. Giorn. degli Econ., April, May.
- COMBES DE LESTRADE (Vicomte). La Crise en Sicile. Journ. des Econ., March, April.
- CRÜGER (H.). L'Importanza Economica e Industriale della Cooperazione. La Riforma Sociale, May.
- DILKE (C. W.). La Politica del Lavoro in Inghilterra. La Riforma Sociale, May.
- HAUSSONVILLE (Comte de). L'Assistance par le Travail. Rev. des Deux Mondes, March 1, May 15.
- JAY (R.). L'Organisation du Travail par les Syndicats Professionnels. Rev. d'Econ. Polit., April.
- KAUFMANN (M.). Il Socialismo Cristiano e la Cooperazione in Inghilterra. La Riforma Sociale, April.
- LEROY-BEAULIEU (A.). Le Règne de l'Argent. Rev. des Deux Mondes, March 15, April 15, June 1.
- MÖLLER (K.). Die Centralisirung des gewerblichen Arbeitsnachweises im deutschen Reich. Jahrb. f. Gesetzg., 18, Heft 2.
- NEUMANN (H.). Die unehelichen Kinder in Berlin und ihr Schutz. Jahrb. f. Nat. Oek., 7, Heft 4.
- ROCHETIN (E.). La Caisse des Retraites Ouvrières et le Projet de la Commission. Journ. des Econ., April, May.
- SCHMOLLER (G.). Neues über das britische Genossenschaftswesen. Preuss. Jahrb., April.
- SIKES (G. C.). Apprenticeship System in the Building Trades. Journ. of Polit. Econ., June.
- WILKINSON (J. F.). Pages in the History of Allotments. Contemp. Rev., April.

III. SOCIALISM.

- BONARDI (E.). *Evoluzionismo e Socialismo*. Florence: O. Gozzini. 8vo. pp. 56. 1.50 fr.
- BOUSIER. *Le Collectivisme et ses Conséquences*. Paris: Guillaumin. 2.50 fr.
- ELY (R. T.). *Modern Socialism and Social Reform*. New York: T. Y. Crowell & Co. 12mo. \$1.50.
- In Periodicals.*
- FAGUET (E.). *Le Comte de Saint-Simon, à l'Occasion de Publications Récentes*. *Rev. des Deux Mondes*, June 15.
- GIDE (C.). *Le Neo-Collectivisme*. *Rev. d'Écon. Polit.*, May.
- MALLOCK (W. H.). *A Socialist in a Corner*. [Reply to G. B. Shaw.] *Fortnightly Rev.*, May.
- . *Fabian Economics*. [From *Fortnightly*, trans. into Ital.] *Giorn. degli Econ.*, June.
- SHAW (G. B.). *On Mr. Mallock's Proposed Trumpet Performance*. [A rejoinder.] *Fortnightly Rev.*, April.

IV. LAND.

- ANDEREGG (F.). *Allgemeine Geschichte der Milchwirtschaft*. Zürich: Füssli. 8vo. pp. 207. 3.20 m.
- FESCA (M.). *Beiträge zur Kenntniss der japanesischen Landwirthschaft*. II. *Spezialer Theil*. Herausg. von der kais. geolog. Reichsanstalt. Berlin: Parey. 8vo. pp. 940. 15 m.
- GRABMAYR (K.). *Schuldnoth und Agrarreform. Eine agrarpolitische Skizze, mit besond. Berücks. Tirols*. Meran: F. W. Ellmenreich. 8vo. pp. 232. 2.80 m.
- GRÜNBERG (K.). *Die Bauernbefreiung und die Auflösung der gutsherrlich-bäuerlichen Beziehungen in Böhmen, Mähren, und Schlesien*. Leipzig: Duncker & Humblot. 8vo. 2 vols. pp. 442, 508. 16m.
- MANCKE (W.). *Ein Compromiss des agrarstaates mit dem Industriestaat. Vorschlag zur Lösung der Getreide- und Brod-Frage in Deutschland*. Berlin: Trowitsch & Sohn. 8vo. pp. 134. 2 m.
- MEYER (R.). *Das Sinken der Grundrente und dessen mögliche sociale und politische Folgen*. Vienna: "Austria." 8vo. pp. 159. 2.50 m.
- SERING (M.). *Das Sinken der Getreidepreise und die Konkurrenz des Auslandes*. Vier Vorlesungen. Berlin: F. Telge. 8vo. pp. 55. 1.50 m.
- WILBRANDT (C.). *Die agrarische Frage*. [In *Volksw. Zeitfragen*.] Berlin: Simion. 8vo. pp. 80. 2 m.
- WOHLTMANN (F.). *Landwirthschaftliche Reise Studien über Chicago und Nordamerika*. Breslau: Schletter. 8vo. pp. 448. 6 m.
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- KNAPP (G. F.). *Die Bauernbefreiung in Oesterreich und in Preussen*. *Jahrb. f. Gesetzg.*, 18, Heft 2.
- MOORE (F. W.). *The Condition of the Southern Farmer*. *Yale Rev.*, May.
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- WIEDENFELD (K.). *Der deutsche Getreidehandel*. [Continued.] *Jahrb. f. Nat. Oek.*, 7, Heft 3.
- ZOLLA (D.). *Les Variations du Rvenu et du Prix des Terres en France au XVII. et au XVIII. Siècle* [continued]. *Ann. de l'École Libre des Sci. Pol.*, April.

VI. INDUSTRIAL ORGANIZATION.

HOLE (J.). National Railways. London: Cassell.

JEANS (J. S.). Trusts, Pools, and Corners as affecting Commerce and Industry: An Inquiry into the Principles and Recent Operation of Combinations and Syndicates. London: Methuen. 8vo. pp. 198. 2s. 6d.

In Periodicals.

ANDREWS (E. B.). The Combina-

tion of Capital. Internat. Journal of Ethics, April.

MAROUSSEM (P. du). Une Grande Cité et son Marché Central: Le Carreau des Halles de Paris et sa réglementation traditionnelle. Rev. d'Econ. Polit., April.

SCHAEFFLE (A.). Zur Errichtung der Handwerks- und der Landwirtschaftskammern. Zeitschr. Ges. Staatsw., 50, Heft 3.

VII. TRANSPORTATION AND EXCHANGE.

CARPENTIER (A.) and MAURY (G.). Traité Pratique des Chemins de Fer. [Extrait du Répertoire général Alphabétique du Droit Français.] Paris: L. Larose. 3 vols. 8vo. 30 fr.

FRANKENSTEIN (K.). Materialien zur Beurtheilung der Eisenbahnpolitik und des Eisenbahnwesens in Russland. Berlin: G. Schuhr. 8vo. pp. 63. 2 m.

KANDT (M.). Ueber die Entwicklung der australischen Eisenbahnpolitik. [Chiefly on Victoria, 1848-68.] Berlin: H. Mamroth. 8vo. pp. 263.

ROSENTHAL (E.). Internationales Eisenbahnfrachtrecht, auf Grund der Berner Convention. Jena: Fischer. 8vo. pp. 310. 9 m.

SCHANZ (G.). Studien über die bayerischen Wasserstrassen. II. Der Donau-Main Kanal und seine Schicksale. Bamberg: C. Buchner. 8vo. pp. 195. 4.50 m.

WEICHS-GLON (F.). Das finanzielle und sociale Wesen der modernen Verkehrsmittel. Tübingen: Laupp. 8vo. pp. 257. 5 m.

In Periodicals.

DURANT (G.). De l'Établissement d'une Législation Internationale sur le Transport des Marchandises par Chemins de Fer. Ann. de l'École Libre des Sci. Pol., March 15.

HAMILTON (Lord G.). Ocean Highways: Their Bearing on the Food and Wages of Great Britain. Journ. of Statist. Soc., March.

MERRIAM (L. C.). The Pacific Railroad Telegraphs. Pol. Sci. Quarterly, June.

RAWSON (Sir R. W.). Ocean Highways: Approaches to the United Kingdom. Journ. of Statist. Soc., March.

WACHS (O.). Die Zukunft West-Indiens und der Nicaragua Kanal. Deutsche Rundschau, May.

WALKER (A. F.). Has the Interstate Commerce Law been Beneficial? Forum, April.

WHITE (H. K.). Pacific Railway Debts. Journ. of Polit. Econ., June.

VIII. INTERNATIONAL TRADE CUSTOMS AND TARIFFS.

BAZANT (J.). Die Handelspolitik Oesterreich-Ungarns, 1875 bis 1892, in ihrem Verhältniss zum deutschen Reich und zu dem westlichen Europa. Leipzig: Duncker & Humblot. 8vo. pp. 198. 4 m.

BOWLEY (A. L.). A Short Account of England's Foreign Trade in the Nineteenth Century. With ten statistical Diagrams. London: Sonnenschein & Co.; New York: Scribner's. 12mo. pp. 160. \$1.

VEILLCOWITCH (V.). *Les Traités de Commerce: Étude de Droit International et d'Économie Politique*. Paris: V. Briard et E. Brière. [Announced.]

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CHARLES-ROUX (J.). *Le Cadenas et les Droits de Douane*. Rev. des Deux Mondes, June 15.

FRIEDERICHOWICZ (E.). *Die Zollpolitik Englands seit 1820*. Preuss. Jahrb., April, May.

MOLINARI (G. de). *Les Droits sur les Blés*. Journ. des Écon., March.

NAQUET (A.). *Libero Scambio e Protezionismo*. La Riforma Sociale, May.

IX. MONEY, BANKING, CREDIT, AND PRICES.

ADAMS (Brooks). *The Gold Standard. An Historical Study*. Boston: New England News Company. pp. 35.

ARNAUDÉ (A.). *La Monnaie, le Crédit, et le Change*. Paris: F. Alcan. 8vo. pp. 402.

BUCHANAN (J. B.). *Principles of Money and Coinage*. Denver, Col.: The Chamber of Commerce. 12mo. pp. 135. 25 cts.

COLAJANNI (N.). *Banche e Parlamento: Fatti, Discussioni, e Commenti*. Milan: Frat. Treves. 16mo. pp. 399. 2 fr.

CRANDALL (O. A.). *The Currency Primer*. Sedalia, Mo.: Dexter Book Company. 8vo. pp. 56. 25 cts.

DUNN (J. P.). *The World's Silver Question*. Indianapolis: Printed by F. H. Smith. 8vo. pp. 89.

ELLSTAETTER (K.). *Indien's Silberwährung*. [In *Münchener Studien*, edited by Brentano and Lotz.] Stuttgart: Cotta. 8vo. pp. 140. 3 m.

GEORGE (E. M.). *The Silver and Indian Currency Questions treated in a Practical Manner*. London: E. Wilson. 8vo. 1s. 3d.

GERMANY. *Drucksachen der Silberkommission von 1894*. Berlin: Puttkammer & Mühlbrecht. 4to. 50 m. [Announced.]

GIBBS (H. C.). *A Bimetallic Primer*. London: E. Wilson. 8vo. pp. 114. 1s.

GRAFFENRIED (C. W.). *Die schweizerische Staatsbank*. Bern: Schmid, Francke & Co. 8vo. pp. 66. 1.50 m.

HEYN (O.). *Papierwährung mit Goldreserve für den Auslandsver-*

kehr. Ein Mittel zur Lösung der Währungsfrage. Berlin: Puttkammer & Mühlbrecht. 8vo. pp. 90. 2 m.

HELM (E.). *The Joint Standard: A Plain Exposition of Monetary Principles and of the Monetary Controversy*. London: Macmillan. 8vo. pp. 220. 3s. 6d.

JACKSON (C. C.). *Has Gold appreciated?* Boston: Little, Brown & Co. 8vo. pp. 38.

PHILLIPS (M.). *A History of Banks, Bankers, and Banking in Northumberland, Durham, and North Yorkshire, illustrating Commercial Development of the North of England, 1755-1894*. London: Effingham, Wilson & Co. 4to. pp. 400. Illustrated. 21s. [Announced.]

PHIN (I.). *Common Sense Currency: A Practical Treatise on Money in its Relations to National Wealth and Prosperity*. New York: Industrial Publishing Company. 8vo. pp. 244. \$1.

ROCHUSSEN (J.). *Reichsgold oder Weltgeld*. Berlin: Puttkammer & Mühlbrecht. 8vo. pp. 160. 3 m.

ROOT (J. W.). *Silver up to Date. A Popular Work on the Silver Question*. London: Philip. 8vo. 2s. 6d.

STOKES (A. P.). *Joint Metallism*. New York: G. P. Putnam's Sons. 8vo. pp. 118. 75 cts.

WIESER (F.). *Die Währungsfrage und die Zukunft der oesterreichischen Valutareform*. Vortrag. Vienna: F. Tempsky. 8vo. pp. 28. .60 m.

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- allism. Chicago: Coin Publishing Company. 16mo. pp. 78. 25 cts.
- WILLIAMSON (G. C.). *The Money of the Bible*. New York: F. H. Revell Company. 12mo. pp. 96. \$1.
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- BAUGNIES (G.). *La Réforme Monétaire Austro-Hongroise* [conclusion]. *Ann. de l'École Libre des Sci. Pol.*, April.
- BARCLAY (R.). *The Appreciation of Gold*. *Fortnightly Rev.*, May.
- CLARE (G.). *Stock Exchange Securities: Colonial Stocks*. *Journ. of Inst. of Bankers*, March, May.
- COLAJANNI (N.). *The Italian Bank Scandals*. *Fortnightly Rev.*, April.
- CORK (N.). *The late Australian Banking Crisis*. [Appendix with Schemes for Reconstruction of the Suspended Banks.] *Journ. of Inst. of Bankers*, April.
- CUMMINGS (J.). *Monetary Standards*. *Journ. of Polit. Econ.*, June.
- FOURNIER DE FLAIX (E.). *La Crise Économique et Financière de l'Italie*. *Journ. des Écon.*, March.
- GRUNWALD (M.). *Geschichte des italienischen Zwangskurses und der Wiederherstellung der Valuta*. *Fin. Archiv*, XI, i.
- GRUNZEL (J.). *China und die Silberkrisis*. *Jahrb. f. Nat. Oek.*, 7, Heft 4.
- HAZARD (R.) and SPAHR (C. B.). *Giffen's Case against Bimetallism*. *Pol. Sci. Quarterly*, June.
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- PHILLIPS (M.). *Early Banking in Northumberland, Durham, and the Vicinity*. *Journ. of Inst. of Bankers*, May.
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- WHITE (H.). *Black Friday, 1869*. *Yale Rev.*, May.
- ZUCKERKANDL (R.). *La Mesure des Transformations de la Valeur de la Monnaie*. *Rev. d'Écon. Polit.*, March.

X. FINANCE AND TAXATION.

- ALESSIO (G.). *La Funzione del Tesoro nello Stato Moderno*. Padua: Frat. Drucker. 8vo. pp. 142.
- LINCKH (O.). *Das Tabakmonopol in Württemberg. Ein Beitrag zur Finanzgeschichte Württembergs, besonders seit Mitte des vorigen Jahrhunderts*. Stuttgart: Kohlhammer. 8vo. pp. 79. 2.50 m.
- O'MEARA (J. J.). *Municipal Taxation at Home and Abroad, Local Government Indebtedness and Valuation. With Statistics relating to the Principal Municipalities of the World*. London: Cassell. 8vo. pp. 322. 7s. 6d.
- PREUSS (H.). *Reichs- und Landesfinanzen* [in *Volksw. Zeitfragen*]. Berlin: Simlon. 8vo. pp. 83. 2 m.
- RAFFALOVICH (A.). *Le Marché Financier en 1893-94*. Paris: Gullaumin & Cie. 8vo. pp. 500. 6 fr.
- UNSIGNED. *Proceedings of the Conference of the Local Government and Taxation Committee of the London County Council, with Assessment Authorities*, March, 1894. London: P. S. King. 8vo. 5s.
- VOCKE (W.). *Die Grundzüge der Finanzwissenschaft*. [In Hand-

- und Lehrbuch der Staatswissenschaften, edited by K. Frankenstein.] Leipzig: C. L. Hirschfeld. 8vo. pp. 458. 11 m.
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THE CIVIL WAR INCOME TAX. TABLE I.—SHOWING AMOUNT OF COLLECTIONS, 1863-72

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TABLE II.

ESTIMATES OF TAXABLE INCOME RETURNED FOR ASSESSMENT.

[00,000 omitted.]

	1863.	1864.	1865.	1866.
Over \$600 and not over \$10,000 (3%),..	264,8	323,2		
“ “ “ “ “ \$5,000 (5%),..			520,9	451,0
“ \$10,000 (5%),.....	137,1	187,2		
“ \$5,000 (10%),.....			345,0	255,4
TOTAL,	401,9	510,4	865,9	706,5
Over \$600 (5% Sp. Inc. Tax),.....		578,5		

	1867.	1868.	1869-70 (average).	1871-72 (average).
Over \$1,000 (5%),.....	548,3	467,8	518,9	
“ \$2,000 (24%),				321,9

The above estimates are for the most part based upon the annual collections which are given in Table I. The difficulty in making such estimates is that the successive annual collections do not accurately represent the annual assessments, so that we do not know how much of the collections in any fiscal year belong to the assessment of that year and how much to the assessment of the preceding year. Down to 1867, however, all but a small fraction of each annual assessment would be collected in the next fiscal year; for instance, as the law then stood, the tax assessed in 1863 on the income of 1862 did not become due until June 30, 1863, and consequently nearly all of it would be collected in the fiscal year ending June 30, 1864. It is safe to assume, then, that the amount of personal income tax collected in 1864 represents very nearly the assessment of 1863;* and on that assumption the amount of income taxed in 1863 must have been approximately \$402,000,000, of which \$265,000,000 was assessed at 3 per cent. and \$137,000,000 at 5 per cent.

* We need not add the small amount, \$450,231, collected in 1863. That may be offset against a corresponding small amount which probably belonged to the assessment of 1864, but was collected before the beginning of the fiscal year 1865.

The estimates for 1864 and 1865 have been obtained in the same way. But when we come to the year 1866 we must take into consideration the effect of the change in the date on which the collections began. Under the act of 1867 the tax became due April 30, and the result was that a considerable portion of the assessment in any year was collected before the close of the same fiscal year; the balance would be comprised under the collections of the next year. Under this system an annual collection cannot be taken to represent the assessment of either the same year or the preceding year.*

The collections for 1867 included not only the tax assessed in 1866, but also so much of the assessment of 1867 as was collected in the two months of May and June. The commissioner's report states that the latter amount was \$8,939,173, and the balance, \$48,101,467, belongs to the assessment of 1866. In the tabulated returns, however, these two amounts are not separated. But the amount belonging to the assessment of 1867 must have been included under the 5 per cent. collections. It is safe to assume, then, that the assessment of 1866 was nearly as follows:—

Tax assessed at 5 per cent.	\$22,553,521
Tax assessed at 10 per cent.	\$25,547,947

On this basis the assessed income has been computed at the amount given in the table.

There is no difficulty in obtaining reliable estimates for 1867 and 1868; for the assessments of the years are given in the commissioner's reports; but we fail to find the assessments for 1869 and 1870. But the average of these two years has been obtained by deducting from the total amount collected under the Act of 1867 the amount covered by the first two assessments and dividing the remainder by two. The two assessments could not have differed very widely. For similar reasons it has been necessary to represent the assessments of 1871 and 1872 by an average.

It will be seen, therefore, that these estimates are simply approximations, serving to show the direction, and roughly the extent, of the changes in the returns of taxable income in different years. The amount of tax collected does not show this, partly because of changes in the rates and partly for the reasons just explained.

*The following table shows how the law worked:—

<i>Fiscal year.</i>	<i>Amount collected.</i>	
1867.	\$57,040,640=	{ \$48,101,467 assessed in 1866. 8,939,173 } = \$27,714,966=assessment of 1867.
1868.	\$32,027,610=	{ 18,478,783 } 13,548,827 } = \$23,390,370=assessment of 1868.
1869.	\$25,025,068=	{ 9,841,543 } 15,183,525 } assessed in 1869.

We have not the data for continuing the table, but it suffices to show the want of correspondence between the assessments and the collections.

TABLE III.
NUMBER OF PERSONS ASSESSED.

	1867	1868	1869	1870	1871	1872
Number returning incomes over \$1,000 and not over \$1,400,	101,219	100,588	107,987	112,874		
Number returning incomes over \$1,400 and not over \$2,000,	68,680	55,949	69,184	68,900		
Number returning incomes over \$2,000 and not over \$2,800,					25,479	22,619
Number returning incomes over \$2,800 and not over \$3,000,	40,899	38,957	41,196	40,839		
Number returning incomes over \$3,000 and not over \$4,000,					19,795	18,887
Number returning incomes over \$3,000 and not over \$11,000,	46,055	51,188	45,002	44,732		
Number returning incomes over \$4,000 and not over \$6,000,					12,917	13,335
Number returning incomes over \$6,000 and not over \$12,000,					10,742	11,355
Number returning incomes over \$11,000, Number returning incomes over \$12,000 and not over \$22,000,	9,282	7,965	9,464	9,316	3,707	4,264
Number returning incomes over \$22,000,					2,135	2,489
TOTAL,	266,135	254,617	272,843	276,661	74,775	72,949
Number returning incomes over \$2,000,	96,236	96,110	96,682	94,887	74,775	72,949
Number returning incomes over \$3,000,	55,337	50,153	54,466	54,048		
Number returning incomes over \$2,800,					49,296	50,330
Number returning incomes over \$11,000,	9,282	7,965	9,464	9,316		
Number returning incomes over \$12,000,					5,842	6,753
Number returning incomes over \$2,000 and not over \$3,000,	40,899	38,957	41,196	40,839		
Number returning incomes over \$2,000 and not over \$2,800,					25,479	22,619
Number returning incomes over \$3,000 and not over \$11,000,	46,055	51,188	45,002	44,732		
Number returning incomes over \$3,800 and not over \$12,000,					43,454	43,577

There are no published statements of the number of persons assessed during the first three years after the income tax went into operation. In the year 1866 the total number for the entire country was 460,170. For 1867 and incompletely for 1868 the number is given by States and districts; but there are no such detailed statistics for the years which follow. Beginning with 1867, however, we have given for each year the total number assessed divided into classes on the basis of the amount of tax paid. These returns are presented in Table III, together with some computations based upon them. The amount of income is computed from the tax, and includes the minimum exempted from taxation, but not the amount covered by other forms of exemptions or deductions. Since the tax basis remains the same, the income basis changes after the Act of 1870, reducing the rate and raising the exemption, went into force.

TABLE IV.—SHOWING BY STATES AMOUNT OF TAX COLLECTED IN SUCCESSIVE FISCAL YEARS.
[000 omitted.]

	FIRST PERIOD.				SECOND PERIOD.				THIRD PERIOD.				FOURTH PERIOD.			
	1864.		1865.		1866.		1867.		1868.		1869.		1870.		1871.	
	3 per cent.	5 per cent.	Total.	3 per cent.	5 per cent.	Total.	5 per cent.	10 per cent.	Total.	5 per cent.	5 per cent.	Total.	5 per cent.	5 per cent.	2½ per cent.	2½ per cent.
California,	\$430	\$148	\$578	\$473	\$238	\$711	\$824	\$1,007	\$1,831	\$1,846	\$1,142	\$2,988	\$1,017	\$1,017	\$104	\$299
Connecticut,	315	164	479	205	194	399	626	1,160	1,786	1,667	642	709	34	34	123	161
Dist. Columbia,	106	38	144	65	28	93	210	297	307	215	184	189	19	19	43	55
Georgia,	349	224	573	622	263	875	45	181	228	275	190	228	69	69	37	53
Illinois,	321	33	354	318	90	408	1,638	3,451	5,089	2,715	1,613	3,328	167	167	164	185
Indiana,	66	2	68	111	4	115	1,037	1,060	2,097	3,413	315	346	24	24	66	66
Iowa,	214	136	350	363	491	854	60	316	376	1,071	190	205	22	22	31	31
Kentucky,	25	4	29	67	30	97	643	749	1,392	582	442	669	51	51	104	104
Louisiana,	86	15	101	77	22	99	134	228	362	420	194	410	83	83	70	70
Maine,	285	220	505	304	251	555	101	311	412	125	106	232	15	15	24	24
Maryland,	868	1,014	1,882	878	1,378	2,256	1,748	3,944	5,692	1,023	665	1,684	183	183	283	283
Massachusetts,	135	29	164	159	44	204	2,507	3,954	6,461	4,000	2,643	3,195	909	909	1,229	1,229
Michigan,	205	168	373	286	268	554	263	783	1,046	641	486	1,171	237	237	35	35
Missouri,	44	5	49	83	9	92	86	174	260	168	114	277	631	631	67	67
New Hampshire,	15	15	30	232	270	502	1,147	1,338	2,485	1,583	1,221	2,404	117	117	18	18
New Jersey,	2,035	2,853	4,888	2,292	3,672	5,964	2,269	7,620	9,889	1,563	1,282	2,845	217	217	47	47
New York,	370	370	740	1,117	960	2,077	2,653	5,313	7,966	9,700	8,198	16,898	1,436	1,436	1,277	1,277
Ohio,	1,075	942	2,017	1,229	1,422	2,651	5,966	9,889	15,855	4,360	1,575	5,945	1,447	1,447	325	325
Pennsylvania,	106	267	373	122	264	386	3,680	6,359	10,039	3,404	3,729	7,133	2,057	2,057	194	194
Rhode Island,	22	2	24	80	6	86	918	41	959	1,583	76	859	18	18	114	114
South Carolina,	36	3	39	18	0	18	94	296	390	194	76	271	35	35	12	12
Tennessee,	36	3	39	18	0	18	94	296	390	194	76	271	35	35	12	12
Virginia,	36	3	39	18	0	18	94	296	390	194	76	271	35	35	12	12
Vermont,	101	23	124	139	56	195	201	462	663	353	264	617	194	194	36	36
Wisconsin,	196	67	263	286	138	425	771	1,372	2,143	1,372	964	1,372	373	373	101	101
All other States,																
TOTAL,	\$7,044	\$6,855	\$13,899	\$9,897	\$9,362	\$19,259	\$26,046	\$31,492	\$60,547	\$82,027	\$25,025	\$27,115	\$10,680	\$10,680	\$3,758	\$3,927

TABLE V.

ESTIMATES OF THE AMOUNT OF TAXABLE INCOME RETURNED IN THE
DIFFERENT STATES.

[00,000 omitted.]

UNION STATES.	ASSESSMENT OF 1863.				1864				1865				1870	1871 to 1872 (average)
	\$600 to \$10,000	Over \$10,000	Total.		\$600 to \$10,000	Over \$10,000	Total.		\$600 to \$5,000	Over \$5,000	Total.		Over \$1,000	Over \$2,000
California.....	\$14.3	\$3.0	\$17.3		\$15.7	\$4.7	\$20.5		\$16.4	\$4.7	\$21.1		\$20.2	\$8.1
Connecticut.....	7.1	3.1	10.2		6.8	3.5	10.7		12.5	10.3	22.8		14.2	6.7
Dist. Columbia....	3.5	0.7	4.2		1.8	0.5	2.4		4.2	1.3	5.5		3.7	2.2
Delaware.....	1.6	0.5	2.1		1.9	1.0	2.9		2.8	0.9	3.7		1.3	0.8
Illinois.....	12.1	4.4	16.4		20.7	5.0	25.7		36.2	16.3	52.6		23.3	8.7
Indiana.....	7.7	0.6	8.3		10.6	1.8	12.4		20.7	4.7	25.4		6.5	2.6
Iowa.....	1.8	0.0	1.9		3.7	0.0	3.7		8.2	0.6	8.8		3.2	1.2
Kentucky.....	7.1	2.7	9.8		16.3	3.1	19.5		17.1	5.4	22.5		11.4	4.4
Maine.....	2.8	0.3	3.1		2.5	0.4	3.0		4.2	1.0	5.2		3.0	1.3
Maryland.....	9.9	4.4	13.4		10.1	5.8	15.9		16.0	9.8	25.8		17.2	10.1
Massachusetts.....	28.9	20.2	49.2		29.2	25.5	54.8		50.1	42.5	92.6		63.9	44.4
Michigan.....	4.5	0.5	5.0		5.3	0.8	6.1		10.4	2.6	13.0		9.0	5.9
Minnesota.....	0.5	0.0	0.5		0.9	0.0	0.9		1.1	0.2	1.4		1.5	0.9
Missouri.....	6.8	3.3	10.1		9.5	5.1	14.6		11.1	8.0	19.2		12.6	4.1
Nevada.....	0.9	0.2	1.1		1.3	0.3	1.6		1.3	0.1	1.5		1.7	0.7
New Hampshire.....	1.4	0.1	1.5		1.7	0.1	1.9		2.8	0.6	3.5		2.3	1.2
New Jersey.....	10.9	3.1	14.0		13.0	5.4	18.4		22.9	10.7	33.6		24.4	14.6
New York.....	67.8	56.6	124.5		76.4	73.4	149.8		119.8	122.8	242.7		162.9	117.1
Ohio.....	24.7	7.4	32.1		32.6	12.3	45.0		53.0	25.2	78.3		28.7	16.5
Oregon.....	0.9	0.1	1.1		0.5	0.0	0.5		1.4	0.2	1.6		3.4	1.3
Pennsylvania.....	35.8	18.8	54.7		40.9	28.4	69.4		73.8	59.9	133.7		74.4	42.7
Rhode Island.....	3.5	5.1	8.6		4.0	5.2	9.3		5.5	9.1	14.7		7.1	6.0
Vermont.....	1.2	0.0	1.2		1.6	0.1	1.8		3.1	0.5	3.7		1.1	0.8
West Virginia.....	0.9	0.1	1.1		1.6	0.6	2.2		2.7	1.1	3.9		1.5	0.7
Wisconsin.....	3.3	0.4	3.8		4.6	1.1	5.7		6.3	2.0	8.3		3.9	2.6
All Others.....	1.5	0.2	1.8		3.2	0.6	3.9		5.3	1.4	6.8		5.4	2.4
TOTAL.....	\$263.5	\$137.0	\$400.6		\$322.6	\$187.2	\$509.8		\$517.9	\$344.8	\$862.8		\$509.0	\$308.7

The estimates in Table V., like most of those in Table II., are based upon the amount of tax collected in different years. The collections by States are given in Table IV. The estimates for the first three years have, as before, been computed on the assumption that the collections of each year are practically equivalent to the assessments of the preceding year. But, for the reasons explained in connection with Table II., we cannot make use of that assumption when we come to the collections of 1867; and it is not possible to ascertain from any published data what part of the collections in each State belongs to the assessment of 1866,

and what part to the assessment of 1867. In view of this uncertainty it is useless to attempt to estimate the taxable income returned by States in 1866; this is all the more regrettable because that year shows a falling off in the returns which cannot be explained by any change in the rate or the exemption. It would be interesting to know whether the ratio of decrease was practically the same in all States, or more marked in some than in others.

Similar difficulties stand in the way of making estimates for the four years which follow. The tax of 1867 was not collected as promptly as the subsequent assessments were; and the uncollected balance at the close of that year makes the collections of 1868 abnormally large. The collections of 1869, on the other hand, are below the average because of the defective assessment of 1868. But the collections of 1870 may be assumed to fairly represent the yield of a normal assessment under the Act of 1867. On this basis the estimates given in the table have been computed. The returns for the years 1871 and 1872 have been averaged as was done in preparing Table II.

THE NUMBER OF THE UNEMPLOYED.

Trustworthy information as to the numbers of persons out of employment in the various cities during the past winter, however essential for a just understanding of the relief measures resorted to, is in most cases impossible to obtain. In the case of most cities nothing more than an estimate can be secured. A word may be said about such statistical data as are available.

A census of the unemployed in Philadelphia taken by the police force in November showed 46,859 persons then out of work who a year before had been earning regular wages. A similar census in Cincinnati indicated the number of unemployed workingmen as 5,149; and the decrease of the total number of persons employed, as compared with the number in 1892, as 7,020. In Chicago a police canvass of 2,200 large manufacturing and wholesale establishments showed in September a decrease in the working force of 75,000, or 40.3 per cent. A much more limited report obtained two months later from 250 establishments pointed to a decrease of but 18.7 per cent. A December canvass in Milwaukee showed some 11,200 males out of employment.

In Boston an estimate, based on the assumption that 5 per cent. of those engaged in transportation and personal employment, 10 per cent. of clerks and domestic servants, and (as indicated by statements of trades-union officers) 37 per cent. of wage-earners of the manufacturing and laboring class were out of employment, placed the total number of unemployed workers early in December at about 38,000. A police canvass taken a little later resulted in the return of but 5,063 names of unemployed adults. It is probable, however, that the police somewhat neglected streets or blocks where residents were, often wrongly, assumed not to be affected; and it is certain that a proportion of the unemployed who did receive blanks of inquiry did not fill them out. At the office of the Citizens' Relief Committee 7,446 men and 3,510 women were registered, and a total of about 10,000 persons were furnished with employment.

The Commissioner of Industrial Statistics of Maryland, in a bulletin issued March 1, using trades-union returns much as did the Boston estimate, but without making the same allowances for the smaller proportion in certain occupations, calculated that 38 per cent. of the 90,000 working people of Baltimore, or 33,900, were out of employment.

A census taken in Brooklyn showed 46,688 males and 9,968 females out of employment, making a total of 56,656, of whom 19,873 were reported in need of assistance.

A police census of the tenement-house district of New York City, tabulated early in February, disclosed 48,881 families which had one or more members out of work. Of the 78,023 persons in these families who were usually employed, 67,280 (52,592 males and 14,088 females) were at that time deprived of employment. 39,311 families, including some 169,000 persons, reported that they were in need of assistance.

The Commissioner of Statistics of Labor of the State of New York made in December an inquiry into the effects of the depression on manufacturing interests. Of 2,011 establishments in 64 general industries, 470 had kept their usual force on full time, 199 were entirely closed, 225 had closed, but later resumed at least in part, 1,087 were partially closed. These partially closed establishments retained on the average 67 per cent. of their employees, and kept them at work from 5 to 100 per cent. of the ordinary working time. The periods for which establishments had been partially or entirely closed ran from one week to eight months; but the larger part were closed from two weeks to three months.

A similar investigation by the Labor Bureau of Michigan showed that, of 2,066 factories canvassed from September to February, 377, including some of the largest in the State, were altogether idle. Of those in operation, 572 were running short time, at a loss to labor of 82,627 hours per week. The number of men who were reported in March as laid off was 48,725. The total loss to labor in the 2,066 factories inspected was 1,763,060 working days during the five months from September to February.

All of the foregoing statistics are drawn from communities which have been most severely affected by the industrial depression. As representative of the portions of the country where there has been during recent months a far less degree of enforced idleness, the investigation of the Commissioner of Labor of the State of New Hampshire is of interest. Reports received from officials of 210 of the 234 towns and cities of the State give the estimated number of persons unable to obtain employment as 2,968, the number wholly or in part dependent on charity as 1,969.

The following are numerical estimates of the number of the unemployed in various cities and towns received since the publication of the article on this subject in the January number of this *Journal*. All except those enclosed in parentheses were furnished by public officials or officers or charitable organizations or relief committees. In considering them, it should be remembered that statements received from many localities, especially from smaller places, and from cities in the Southern, South-western, and agricultural States, indicate that few, if any, more are unemployed than in ordinary years, and that, at least according to newspaper reports, there has been during the spring a brisk demand for labor in many agricultural communities, as, for example, in Georgia, in Mississippi, and even in such States as Connecticut, Massachusetts, Pennsylvania, New Jersey, and New York.

<i>State and City.</i>	<i>Date.</i>	<i>Police Census.</i>	<i>Conservative Estimate.</i>	<i>Current Estimate.</i>
MASSACHUSETTS.				
Boston,	December,	5,063	35,000	—
Cambridge,	December,	930	—	—
CONNECTICUT.				
Bridgeport,	January,	—	2,500	4,000
RHODE ISLAND.				
Providence,	January,	—	4,800	—
NEW HAMPSHIRE.				
Concord,	—	—	less than 100	—
NEW YORK.				
New York,	December,	67,280	80,000	—
Brooklyn,	—	56,676	—	—
Rochester,	—	—	—	5,000-10,000
Syracuse,	in winter,	3,000	—	—
Schenectady,	to April,	—	4,400	—
Lockport,	—	—	250	—
NEW JERSEY.				
Elizabeth,	winter and spring,	—	more than 2,000	—
Orange,	—	—	1,000	—
Bridgeton,	April,	—	1,000	—
Bayonne,	—	—	325	—
PENNSYLVANIA.				
Pittsburg,	—	over 15,000	18,000	—
Harrisburg,	—	—	3,000-4,000	—
Scranton,	November,	2,500	—	—
Phoenixville,	—	—	2,000	—
Beaver Falls,	—	—	300	—
MARYLAND.				
Baltimore,	March,	33,900	—	—
DELAWARE.				
New Castle,	March,	400	—	—
VIRGINIA.				
Roanoke,	—	500	—	—
OHIO.				
Dayton,	—	—	3,000	—
Zanesville,	—	about 1,000	—	—
INDIANA.				
Terre Haute,	—	1,600	—	—
New Albany,	—	—	1,200	—
Anderson,	—	—	1,000	—
ILLINOIS.				
Freeport,	—	350	—	—
Quincy,	January,	—	—	400
MICHIGAN.				
Detroit,	—	—	18,000-20,000	—
Detroit,	April,	—	(30,000)	—
Manistee,	April,	—	150	—

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<i>State and City.</i>	<i>Date.</i>	<i>Police Census.</i>	<i>Conservative Estimate.</i>	<i>Current Estimate.</i>
WISCONSIN.				
Milwaukee,	December,	11,200 males	—	—
La Crosse,	February,	—	2,000 men	—
MINNESOTA.				
Minneapolis,	April,	—	8,000	—
St. Paul,	—	—	3,000-7,000	—
Duluth,	—	1,500	—	—
St. Cloud,	—	—	400	—
KENTUCKY.				
Louisville,	December,	15,000	—	—
Maysville,	—	—	500	—
TENNESSEE.				
Memphis,	—	—	5,000	—
Nashville,	—	—	1,500-2,000	—
Jackson,	—	—	200	—
GEORGIA.				
Columbus,	"at times,"	—	300-400	—
Macon,	—	—	300	—
FLORIDA.				
Jacksonville,	"at times,"	—	200	—
LOUISIANA.				
Donaldsonville,	April,	—	200	—
NEBRASKA.				
Omaha,	winter,	—	10,000	—
KANSAS.				
Arkansas City,	winter,	—	500	—
Abilene,	April,	—	200	—
OKLAHOMA.				
Guthrie,	—	—	200	—
Oklahoma City,	—	—	50	—
MONTANA.				
Butte City,	—	2,000	—	—
COLORADO.				
Denver,	winter,	—	12,000	12,000
UTAH.				
Salt Lake City,	April,	—	2,780	—
IDAHO.				
Pocatello,	—	—	55	—
CALIFORNIA.				
San Francisco,	October to April	—	(30,000)	—
Fresno,	—	—	300	—

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